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**PRESSURE DISTRIBUTION ON  
A VECTORED-THRUST V/STOL FIGHTER  
IN THE TRANSITION-SPEED RANGE**

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# PRESSURE DISTRIBUTION ON A VECTORED-THRUST V/STOL FIGHTER IN THE TRANSITION-SPEED RANGE

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## SUMMARY

A wind-tunnel investigation has been conducted in the Langley V/STOL tunnel with a vectored-thrust V/STOL fighter configuration to obtain detailed pressure measurements on the body and on the wing in the transition-speed range to verify aerodynamic prediction techniques developed by the Northrop Corporation under a U.S. Air Force contract. The model tested was equipped with one lift-jet and two vectored-thrust engine simulators. The vectored-thrust engine simulators could be tested at two alternate nozzle-exit locations and three nozzle-exit deflection angles ( $0^\circ$ ,  $45^\circ$ , and  $90^\circ$ ). Pressure data were obtained on the wing, fuselage, and engine nacelle through an angle-of-attack range from approximately  $0^\circ$  to  $20^\circ$  at four effective velocity ratios.

The jet exhaust induces a downwash on the wing as well as a region of negative pressure coefficients on the lower surface of the wing. The region is larger and the pressure coefficients are more negative for the front vectored-thrust nozzles than for the rear vectored-thrust nozzles. The jet exhaust also induces a region of negative pressure coefficients on the bottom of the fuselage. The induced pressure effects are largest at the smallest effective velocity ratio and at the location nearest to the jet. The effects decrease with increasing effective velocity ratio and increasing distance from the jet.

## INTRODUCTION

The transition regime of VTOL aircraft covers the velocity range from hover (zero forward speed) to cruise (the speed necessary for wingborne flight). In the transition regime of VTOL aircraft, the jet exhaust effects tend to dominate the aerodynamic characteristics. To determine the aircraft performance, it is necessary to predict both the aerodynamic characteristics in forward flight and the effects of the pressure fields and velocity flow fields induced on the aircraft by the jet exhaust.

The Northrop Corporation, under a U.S. Air Force contract, has developed some methods for predicting the aerodynamic and jet-induced effects in transition flight for V/STOL aircraft. (See ref. 1.) The purpose of the present investigation, a cooperative effort with the U.S. Air Force Flight Dynamics Laboratory, was to obtain aerodynamic, flow-field, and pressure data to verify these prediction methods. The pressure data are presented in this report, and the aerodynamic and flow field data are presented in reference 2 without any comparisons with the prediction methods. Some comparisons of the prediction methods with the data may be found in Volume II of reference 1.

The model tested was a vectored-thrust V/STOL fighter configuration equipped with one lift-jet and two vectored-thrust engine simulators. Each vectored-thrust engine simulator was tested at two alternate nozzle-exit locations and up to three nozzle-exit deflection angles.

Pressure orifices were located on the wing, fuselage, and engine nacelle to obtain pressure data through an angle-of-attack range at four effective velocity ratios and through an effective-velocity-ratio range at two angles of attack. In addition, a limited amount of data was obtained through a range of sideslip angles at four effective velocity ratios. All data were obtained at Mach numbers ranging from 0 to 0.22.

## SYMBOLS

The units used for the physical quantities defined in this paper are given in the International System of Units (SI) and parenthetically in the U.S. Customary Units. Conversion factors for the SI System are presented in reference 3.

Symbol notation within brackets is the computer notation in the machine pressure tabulations.

$A_j$	effective jet-exit area (that is, sum of exit areas of devices producing thrust), $\text{cm}^2$ ( $\text{in}^2$ ) (see fig. 1(a))
$b$	wing span, 102.24 cm (40.25 in.)
$c$ [C]	local wing chord
$C_p$ [CP]	pressure coefficient, $\frac{p_l - p_\infty}{q_\infty}$
$C'_p$ [CP']	hover pressure coefficient, $\frac{p_l - p_\infty}{T/2A_j}$



$C_T$	thrust coefficient, $\frac{T}{q_\infty S}$
$l$ [L]	fuselage length, 128.14 cm (50.45 in.)
$p_l$	local static pressure, $N/m^2$ (lbf/ft <sup>2</sup> )
$p_\infty$	tunnel free-stream static pressure, $N/m^2$ (lbf/ft <sup>2</sup> )
$q_j$	effective jet dynamic pressure, $\frac{T}{2A_j}$ , $N/m^2$ (lbf/ft <sup>2</sup> )
$q_\infty$ [Q]	tunnel free-stream dynamic pressure, $N/m^2$ (lbf/ft <sup>2</sup> )
$S$	wing area, 2090 cm <sup>2</sup> (2.25 ft <sup>2</sup> )
$T$	static thrust, N (lbf)
$V_j$	effective jet velocity, m/sec (ft/sec)
$V_\infty$	free-stream velocity, m/sec (ft/sec)
$\left(\frac{V_\infty}{V_j}\right)_e$	effective velocity ratio, $\sqrt{\frac{q_\infty}{T/2A_j}}$
$X, Y, Z$	model body axes
$x, y, z$ [X, Y]	distance measured in body-axis system
$y_{max}$ [YMAX]	maximum half-width of the fuselage, 6.35 cm (2.50 in.)
$\alpha$	angle of attack, deg
$\beta$	angle of sideslip, deg
$\rho_\infty$	free-stream density, kg/m <sup>3</sup> (lbm/ft <sup>3</sup> )
$\rho_j$	jet density, kg/m <sup>3</sup> (lbm/ft <sup>3</sup> )

$\eta$  fraction of semispan,  $\frac{y}{b/2}$

Model component designations:

B body

f flap

J lift jet

$N_1$  nacelles with front vectored-thrust nozzles, used with appropriate nozzle deflection angle in degrees

$N_2$  nacelles with rear vectored-thrust nozzles, used with appropriate nozzle deflection angle in degrees

plug nacelle inlet closed with an elliptical plug

W wing

0, 45, 90 nozzle deflection angles in degrees

## MODEL AND APPARATUS

The model, presented in figures 1 and 2, was a vectored-thrust V/STOL fighter configuration equipped with one lift-jet and two vectored-thrust engine simulators. The lift-jet simulator, located within the fuselage, was a simple convergent nozzle without an external air intake. The lift-jet exit was located on the center line of the fuselage bottom 7.67 cm (3.02 in.) forward of the model moment reference center which was at the 25-percent-chord position of the mean aerodynamic chord. The lift jet exhausted  $90^\circ$  from the horizontal plane. The vectored-thrust engine simulators, mounted in removable fuselage-supported nacelles, were of the ejector type which induced inlet flow. The vectored-thrust jet exits could be set 2.67 cm (1.05 in.) forward of or 18.62 cm (7.33 in.) aft of the model moment reference center and could also be vectored in the X-Z plane at angles of  $0^\circ$ ,  $45^\circ$ , and  $90^\circ$  from the horizontal plane.

The model was equipped with pressure orifices on the left wing (fig. 1(a) and table 1(a)), on the bottom of the fuselage (fig. 1(b) and table 1(b)), and along the center line of the top and bottom of the left nacelle (fig. 1(b) and table 1(c)). The pressure orifices

were located chordwise at four spanwise stations of the left wing, but the nacelle and the nacelle fairing covered up several of the orifices at the inboard station so that a detailed survey at this location was not always possible.

Two elliptical plugs (fig. 1(b)) were used to close the vectored-thrust engine inlets in some of the tests. The base diameter of the plug was 12.01 cm (4.73 in.) and the depth was 6.88 cm (2.71 in.). A 45° flap with a chord equal to 25 percent of the local wing chord was also used in some of the tests.

## TEST AND PROCEDURES

The investigation was conducted in the Langley V/STOL tunnel which is a closed-return, atmospheric tunnel with a test section of 4.42 meters (14.50 ft) by 6.63 meters (21.75 ft). All testing was performed out of ground effect. Table 2 presents the test conditions for most of the tests.

The basic body-wing-nacelles configuration was tested with the vectored-thrust nozzle exits either forward of (N<sub>1</sub>) or aft of (N<sub>2</sub>) the model moment reference center. At each location, up to three nozzle-exit deflection angles were tested. In addition, tests were performed with the lift-jet simulator, with the flaps extended, and with the engine inlets closed by elliptical plugs.

The thrust of each lift-jet simulator was calibrated as a function of a reference pressure. The reference pressure for the lift jet was the difference between the lift-jet exit total pressure and free-stream static pressure. The reference pressure for the vectored-thrust engine simulators was the ejector plenum static pressure. A description of the calibration method appears in reference 4.

The static forces due to thrust were measured in the body-axis system. These forces were then used to determine the actual thrust direction in the X-Z plane. The nominal and actual thrust directions measured from the horizontal plane are shown in table 3.

The effective velocity ratio was determined from the measured thrust and an effective jet-exit area  $A_j$ . The effective jet-exit area was the sum of the exit areas of the thrust devices in use – the right and left vectored-thrust jets and/or the lift jet. The effective velocity ratio was determined as follows:

$$\left(\frac{V_\infty}{V_j}\right)_e = \sqrt{\frac{\rho_\infty V_\infty^2}{\rho_j V_j^2}} = \sqrt{\frac{q_\infty}{T/2A_j}} \quad (1)$$

From equation (1), it can be seen that the effective velocity ratio is zero for hover and increases with increasing forward speed. The effective velocity ratio for the unpowered case ( $T = 0$ ) is infinity.

From the definitions of thrust coefficient and effective velocity ratio, the relationship of the two parameters may be determined as follows:

$$C_T = \frac{2A_j}{S} \frac{1}{\left(\frac{V_\infty}{V_j}\right)_e^2} \quad (2)$$

The lift-jet configuration, the vectored-thrust-jet configuration, and the lift-jet—vectored-thrust-jet configuration all have different effective jet-exit areas. Figure 3 shows the different values of thrust coefficient which are associated with each jet configuration for a given effective velocity ratio. Effective velocity ratio was chosen as the best parameter to present the data through the transition-speed range because it starts at zero for hover and increases toward a finite value at cruise.

The pressure data on the wing, fuselage, and nacelle have been referenced to the tunnel free-stream static pressure. In the transition-speed range, the pressure data have been expressed in coefficient form by nondimensionalizing the free-stream dynamic pressure, that is,

$$C_p = \frac{p_l - p_\infty}{q_\infty} \quad (3)$$

In hover, the pressure data have been nondimensionalized by the jet effective dynamic pressure and denoted by a prime; thus,

$$C'_p = \frac{p_l - p_\infty}{q_j} = \frac{p_l - p_\infty}{T/2A_j} \quad (4)$$

## PRESENTATION OF DATA

The pressure data have been presented in both tabular and graphical form. The graphical format is intended to present only the trends and includes selected parts of the angle-of-attack and angle-of-sideslip data. The tabular format presents all the angle-of-attack and angle-of-sideslip data as well as the effective-velocity-ratio data. For convenience, the data have been arranged so that the data found in a figure of a given number may also be found in the table of the same number. An index to the pressure profile data (tables 4 to 54) is given on pages 17 to 23.

In general, each figure has four parts with part (a) presenting the unpowered data  $[(V_{\infty}/V_j)_e = \infty]$  and the other parts presenting data for decreasing values of effective velocity ratio. Three different plot formats for the wing, fuselage, and nacelle are used to graphically present the data. For the wing, each plot represents the variation of the pressure coefficient across the wing chord. The  $x/c$  is the fraction of the local wing chord measured from the leading edge with the positive direction aft. Each horizontal row of plots shows the variation of the pressure profile with angle of attack or with angles of sideslip at a semispan station and each vertical row of plots shows the variation of the pressure profile with semispan station at an angle of attack or angle of sideslip.

For the fuselage, each plot shows the variation of the pressure coefficient across the bottom of the fuselage at a constant angle of attack. The  $x/l$  is the fraction of the fuselage length measured from the nose with the positive direction aft.

For the nacelle, each plot represents the variation of the pressure coefficient across the nacelle and wing at a constant angle of attack. The local wing chord was chosen as the reference length with the wing leading edge as the origin and the positive direction aft. At locations forward of the leading edge, the values of  $x/c$  are negative.

As an aid in identifying the various configurations, a system of letters and numbers is used to represent the various model components. The basic wing-body with the lift jet, but without the vectored-thrust nacelles, is BWJ; whereas, the wing-body with the front or rear vectored-thrust nacelles is BWN<sub>1</sub>XX or BWN<sub>2</sub>XX, respectively, with XX indicating the vectored-thrust nozzle-exit deflection angle (0°, 45°, or 90°). The lift-jet—vectored-thrust-nacelles configuration is BWN<sub>1</sub>XXJ or BWN<sub>2</sub>XXJ.

All angle-of-attack and effective-velocity-ratio data are presented at 0° sideslip and all sideslip data are presented at 0° angle of attack. The results are presented as follows:

Configuration	Effect of angle of attack on pressure profile of -			Effect of sideslip angle on wing pressure profile	Effect of effective velocity ratio on pressure profile of -		Effect of thrust in hover on wing pressure profile
	Wing	Fuselage	Nacelle		Wing	Fuselage	
	Table & figure	Table & figure	Table & figure		Table	Table	
BWJ	4	17		27	30	39	46
BWJf	5						
BWN <sub>1</sub> 0	6						
BWN <sub>1</sub> 0f	7						
BWN <sub>1</sub> 45	8	18			31	40	47
BWN <sub>2</sub> 45	9	19			32	41	48
BWN <sub>1</sub> 90	10	20	24	28	33	42	49
BWN <sub>1</sub> 90f	11				34		50
BWN <sub>2</sub> 90	12	21	25	29	35	43	51
BWN <sub>2</sub> 90f	13				36		52
BWN <sub>1</sub> 90J	14	22			37	44	53
BWN <sub>2</sub> 90J	15	23			38	45	54
BWN <sub>1</sub> 90plug	16		26				

Some of the data for the various locations are missing because of problems with the pressure orifices. Also, the ordinate scales used in figures 20(d) and 22 are different from those used in the rest of the fuselage plots because of the high pressure coefficients obtained.

## DISCUSSION

Because of the large amount of data contained herein, no detailed analysis of the results is attempted. However, some of the more obvious trends are discussed. In the transition-speed range of VTOL aircraft, the position of the jet exhaust has a large effect on the pressures on the aircraft. The three jet-exhaust locations used in this investigation were for the lift jet, the front vectored-thrust jets, and the rear vectored-thrust jets. The unpowered case for each configuration, represented by  $(V_\infty/V_j)_e = \infty$ , was chosen as the baseline for determining the effects of jet thrust.

### Effect of Angle of Attack on the Wing Pressures

The chordwise pressure distribution on the wing is presented at four spanwise stations through a range of angle of attack in figures 4 to 16. In general, without thrust at  $0^\circ$  angle of attack, the pressure coefficients on the upper and lower surfaces of the wing have similar distributions, but with thrust at  $0^\circ$  angle of attack, the pressure coefficients on the lower surface are more negative than on the upper surface. With thrust at  $0^\circ$  geometric angle of attack, the wing is operating at a negative local angle of attack because the jet exhaust is inducing a downwash.

In addition to inducing a downwash on the wing, the vectored-thrust jet exhaust induced a region of negative pressure coefficients on the lower surface of the wing. The low-pressure region is larger and the pressure coefficients are more negative for the front vectored-thrust nozzles than for the rear vectored-thrust nozzles. (See figs. 10(c) and 12(c).)

These induced effects are largest at the smallest effective velocity ratio and at the location nearest to the jet. The effects decrease with increasing effective velocity ratio and increasing distance from the jet.

To determine the effect of inlet flow into the vectored-thrust jets, the forward  $90^\circ$  nozzles were tested with the inlets closed by elliptical plugs (fig. 16). Examination of the force and moment data for the inlet open and the inlet closed (ref. 2) indicates that closing the inlets decreases the angle of attack approximately  $2^\circ$ . The pressure data for the inlets open (table 10(a)) and for the inlets closed (table 16) have been plotted, and the curves have been integrated to obtain the section lift coefficients for the different angles of attack.

A comparison showed that with the inlets closed, the wing must be operated at an angle of attack between  $1^{\circ}$  and  $2^{\circ}$  greater to obtain the same section lift coefficient obtained with the inlets open.

#### Effect of Angle of Attack on the Fuselage Pressures

The pressure distribution on the bottom of the fuselage is presented through an angle-of-attack range in figures 17 to 23. For all configurations without power, the pressures on the fuselage were very close to the free-stream static pressure. With thrust, the lift jet (figs. 17(b) to 17(d)) induced large negative pressure coefficients on the bottom of the fuselage with the peak negative pressure coefficients decreasing slightly with increasing angle of attack. Also, the blockage due to the jet caused a region of positive pressure coefficients upstream of the jet.

With thrust, the vectored-thrust jets (for example, fig. 18) induced a region of negative pressure coefficients which decreased with increasing angle of attack and increasing effective velocity ratio. The peak negative pressure coefficients are larger for the  $90^{\circ}$  vectored-thrust jets (figs. 20(b) to 20(d)) than for the  $45^{\circ}$  vectored-thrust jets (figs. 18(b) to 18(d)).

#### Effect of Angle of Attack on the Nacelle Pressure

The pressure distribution along the center line of the left vectored-thrust jet nacelle is presented through an angle-of-attack range in figures 24 to 26. For the vectored-thrust jets without thrust (figs. 24(a) and 25(a)), the pressure distribution shows the same trends as an airfoil would through a range of angle of attack with large negative pressure coefficients near the leading edge of the upper surface and positive pressure coefficients on the lower surface. The addition of thrust changes the pressure coefficients near the front of the nacelle.

To determine the effects of inlet flow, the front nozzles were closed with elliptical plugs (fig. 26). The plugs prevented the large negative pressure coefficients on the upper surface from forming up to the stall angle of attack.

#### Effect of Angle of Sideslip on Wing Pressures

The pressure distribution on the left wing is presented through an angle-of-sideslip range in figures 27 to 29. The pressure distribution on the wing changes with sideslip angle because of the change in effective chord and camber and because of the interference of the fuselage and nacelle with the flow over the wing. The change in pressure distribution produces an increase in lift on the left wing as the sideslip becomes more negative

and a decrease in lift as the sideslip becomes more positive. The effects are larger for the vectored-thrust configuration than for the lift-jet configuration.

### CONCLUDING REMARKS

A wind-tunnel investigation has been conducted on a vectored-thrust V/STOL configuration in the Langley V/STOL tunnel. The location of the jet exhaust has a large effect on the pressures on the aircraft. The vectored-thrust jet exhaust induces a downwash on the wing as well as a region of negative pressure coefficients on the lower surface of the wing. The region is larger and the pressure coefficients are more negative for the front vectored-thrust nozzles than for the rear vectored-thrust nozzles. The jet exhaust also induces a region of negative pressure coefficients on the bottom of the fuselage. The induced pressure effects are largest at the smallest effective velocity ratio and at the location nearest to the jet. The effects decrease with increasing effective velocity ratio and increasing distance from the jet.

Langley Research Center,  
National Aeronautics and Space Administration,  
Hampton, Va., November 13, 1973.



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TABLE 1  
LOCATION OF PRESSURE ORIFICES

(a) Wing

	Distance from fuselage center line, y		Distance from fuselage nose to wing leading edge		Local wing chord, c	
	cm	in.	cm	in.	cm	in.
$\eta = 0.250$	12.80	5.040	51.61	20.319	23.85	9.389
$\eta = 0.387$	19.79	7.792	52.81	20.793	21.98	8.655
$\eta = 0.524$	26.78	10.545	54.02	21.266	20.12	7.921
$\eta = 0.800$	40.77	16.050	56.42	22.212	16.39	6.453

x/c	$\eta = 0.250$		$\eta = 0.387$		$\eta = 0.524$		$\eta = 0.800$	
	x, cm	x, in.	x, cm	x, in.	x, cm	x, in.	x, cm	x, in.
0	0	0	0	0	0	0	0	0
.010	.239	.094	.221	.087				
.015					.302	.119		
.025	.597	.235	.549	.216	.503	.198	.409	.161
.050	1.191	.469	1.100	.433	1.006	.396	.820	.323
.100	2.385	.939	2.200	.866	2.012	.792	1.638	.645
.150	3.576	1.408	3.297	1.298	3.017	1.188	2.459	.968
.250	5.961	2.347	5.497	2.164	5.029	1.980	4.097	1.613
.400	9.540	3.756	8.793	3.462	8.047	3.168	6.556	2.581
.550	13.117	5.164	12.090	4.760	11.067	4.357	9.014	3.549
.700	16.693	6.572	15.390	6.059	14.084	5.545	11.473	4.517
.850	20.272	7.981	18.687	7.357	17.102	6.733	13.932	5.485
.950	22.657	8.920	20.884	8.222	19.114	7.525	15.570	6.130

TABLE 1.- Continued

## LOCATION OF PRESSURE ORIFICES

(b) Fuselage

x/l	y = 0.000 cm (0.00 in.)		y = 3.175 cm (1.25 in.)		y = 5.080 cm (2.00 in.)	
	x, cm	x, in.	x, cm	x, in.	x, cm	x, in.
0.130	16.64	6.55				
.219	25.53	10.05				
.286	36.63	14.42				
.331	42.34	16.67				
.353	45.21	17.80	45.21	17.80	45.21	17.80
.375	48.11	18.94				
.397			50.93	20.05	50.93	20.05
.420	53.80	21.18	53.80	21.18	53.80	21.18
.442	56.64	22.30	56.64	22.30	56.64	22.30
.464	59.49	23.42	59.49	23.42	59.49	23.42
.487	62.36	24.55	62.36	24.55	62.36	24.55
.509	65.23	25.68	65.23	25.68	65.23	25.68
.531	68.07	26.80	68.07	26.80	68.07	26.80
.554	70.92	27.92				
.576	73.79	29.05				
.598	76.66	30.18	76.66	30.18	76.66	30.18
.620	79.50	31.30				
.643	82.35	32.42	82.35	32.42	82.35	32.42
.665	85.22	33.55	85.22	33.55	85.22	33.55
.687	88.09	34.68				
.710	90.93	35.80				
.732	93.78	36.92				

TABLE 1.- Concluded  
LOCATION OF PRESSURE ORIFICES

(c) Nacelle

[Nacelle center line at  $\eta = 0.250$ ]

$x/c$	Top		Bottom	
	x, cm	x, in.	x, cm	x, in.
*-0.620	36.83	14.50	36.83	14.50
*-.684	35.31	13.90	35.31	13.90
-.716	34.54	13.60	34.54	13.60
-.684	35.31	13.90	35.31	13.90
-.593	37.46	14.75		
-.501	39.67	15.62	39.67	15.62
-.380	42.54	16.75	42.54	16.75
-.268	45.21	17.80	45.21	17.80
-.148	48.06	18.92	48.06	18.92
-.029	50.93	20.05		
.060	53.04	20.88		

\*Inside of nacelle inlet.

TABLE 2

TEST CONDITIONS FOR THE VECTORED-THRUST CONFIGURATION ( $N_1$  AND  $N_2$ )

$\alpha$ , deg	$\beta$ , deg	$\left(\frac{V_\infty}{V_j}\right)_e$	$q_\infty$		T	
			N/m <sup>2</sup>	lb/ft <sup>2</sup>	N	lb
0 to 20	0	$\infty$	2870	60.0	0	0
		0.3	2050	42.9	623	140
		.2	910	19.0	623	140
		.1	227	4.76	623	140
0	-12 to +12	$\infty$	2870	60.0	0	0
		.3	2050	42.9	623	140
		.2	910	19.0	623	140
		.1	227	4.76	623	140
0 or 10	0	0 to 0.5	0 to 2870	0 to 60.0	623	140

TABLE 3

## EXHAUST NOZZLE POSITION AND THRUST DIRECTION

Thrust device	Nominal direction, deg	Actual direction, deg	Exit center position			
			x station		z station	
			cm	in.	cm	in.
Lift jet	90	90.1	50.93	20.05	-7.82	-3.08
Front vectored nozzle	0	-1.2	49.71	19.57	2.11	.83
	45	40.1	51.51	20.28	.30	.12
	90	85.2	55.93	22.02	-4.11	-1.62
Rear vectored nozzle	45	40.0	72.80	28.66	.30	.12
	90	85.0	77.22	30.40	-4.11	-1.62

## INDEX TO TABULATED PRESSURE PROFILE DATA

### Table 4.- Effect of Angle of Attack on Pressure Profile on Wing - Lift Jet Alone

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

### Table 5.- Effect of Angle of Attack on Pressure Profile on Wing - Lift Jet Alone With Flaps

### Table 6.- Effect of Angle of Attack on Pressure Profile on Wing - Forward Nozzles Deflected $0^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$

### Table 7.- Effect of Angle of Attack on Pressure Profile on Wing - Forward Nozzles Deflected $0^\circ$ With Flaps

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$

### Table 8.- Effect of Angle of Attack on Pressure Profile on Wing - Forward Nozzles Deflected $45^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

### Table 9.- Effect of Angle of Attack on Pressure Profile on Wing - Rear Nozzles Deflected $45^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

### Table 10.- Effect of Angle of Attack on Pressure Profile on Wing - Forward Nozzles Deflected $90^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 11.- Effect of Angle of Attack on Pressure Profile on Wing – Forward  
Nozzles Deflected 90° With Flaps

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 12.- Effect of Angle of Attack on Pressure Profile on Wing – Rear Nozzles  
Deflected 90°

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 13.- Effect of Angle of Attack on Pressure Profile on Wing – Rear Nozzles  
Deflected 90° With Flaps

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 14.- Effect of Angle of Attack on Pressure Profile on Wing – Forward  
Nozzles Deflected 90° With Lift Jet

- (a) Effective velocity ratio  $\approx 0.3$
- (b) Effective velocity ratio  $\approx 0.2$
- (c) Effective velocity ratio  $\approx 0.1$

Table 15.- Effect of Angle of Attack on Pressure Profile on Wing – Rear Nozzles  
Deflected 90° With Lift Jet

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 16.- Effect of Angle of Attack on Pressure Profile on Wing – Forward  
Nozzles Deflected 90° With Inlets Closed

Table 17.- Effect of Angle of Attack on Pressure Profile on Fuselage – Lift  
Jet Alone

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$



Table 18.- Effect of Angle of Attack on Pressure Profile on Fuselage - Forward  
Nozzles Deflected  $45^{\circ}$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 19.- Effect of Angle of Attack on Pressure Profile on Fuselage - Rear  
Nozzles Deflected  $45^{\circ}$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 20.- Effect of Angle of Attack on Pressure Profile on Fuselage - Forward  
Nozzles Deflected  $90^{\circ}$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 21.- Effect of Angle of Attack on Pressure Profile on Fuselage - Rear  
Nozzles Deflected  $90^{\circ}$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 22.- Effect of Angle of Attack on Pressure Profile on Fuselage - Forward  
Nozzles Deflected  $90^{\circ}$  With Lift Jet

- (a) Effective velocity ratio  $\approx 0.3$
- (b) Effective velocity ratio  $\approx 0.2$
- (c) Effective velocity ratio  $\approx 0.1$

Table 23.- Effect of Angle of Attack on Pressure Profile on Fuselage - Rear  
Nozzles Deflected  $90^{\circ}$  With Lift Jet

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 24.- Effect of Angle of Attack on Pressure Profile on Nacelle - Forward  
Nozzles Deflected  $90^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 25.- Effect of Angle of Attack on Pressure Profile on Nacelle - Rear  
Nozzles Deflected  $90^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 26.- Effect of Angle of Attack on Pressure Profile on Nacelle - Forward  
Nozzles Deflected  $90^\circ$  With Inlets Closed

Table 27.- Effect of Angle of Sideslip on Pressure Profile on Wing - Lift Jet Alone

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 28.- Effect of Angle of Sideslip on Pressure Profile on Wing - Forward  
Nozzles Deflected  $90^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 29.- Effect of Angle of Sideslip on Pressure Profile on Wing - Rear  
Nozzles Deflected  $90^\circ$

- (a) Effective velocity ratio =  $\infty$
- (b) Effective velocity ratio  $\approx 0.3$
- (c) Effective velocity ratio  $\approx 0.2$
- (d) Effective velocity ratio  $\approx 0.1$

Table 30.- Effect of Effective Velocity Ratio on Pressure Profile on Wing - Lift  
Jet Alone

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 31.- Effect of Effective Velocity Ratio on Pressure Profile on Wing -  
Forward Nozzles Deflected  $45^{\circ}$

- (a)  $\alpha = 0^{\circ}$
- (b)  $\alpha = 10^{\circ}$

Table 32.- Effect of Effective Velocity Ratio on Pressure Profile on Wing - Rear  
Nozzles Deflected  $45^{\circ}$

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 33.- Effect of Effective Velocity Ratio on Pressure Profile on Wing -  
Forward Nozzles Deflected  $90^{\circ}$

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 34.- Effect of Effective Velocity Ratio on Pressure Profile on Wing -  
Forward Nozzles Deflected  $90^{\circ}$  With Flaps

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 35.- Effect of Effective Velocity Ratio on Pressure Profile on Wing - Rear  
Nozzles Deflected  $90^{\circ}$

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 36.- Effect of Effective Velocity Ratio on Pressure Profile on Wing - Rear  
Nozzles Deflected  $90^{\circ}$  With Flaps

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 37.- Effect of Effective Velocity Ratio on Pressure Profile on Wing -  
Forward Nozzles Deflected  $90^{\circ}$  With Lift Jet

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 38.- Effect of Effective Velocity Ratio on Pressure Profile on Wing - Rear  
Nozzles Deflected  $90^{\circ}$  With Lift Jet

- (a)  $\alpha \approx 0^{\circ}$
- (b)  $\alpha \approx 10^{\circ}$

Table 39.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Lift Jet Alone

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 40.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Forward Nozzles Deflected  $45^\circ$

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 41.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Rear Nozzles Deflected  $45^\circ$

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 42.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Forward Nozzles Deflected  $90^\circ$

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 43.- Effect of Effective Velocity Ratio on Pressure Profile of Fuselage -  
Rear Nozzles Deflected  $90^\circ$

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 44.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Forward Nozzles Deflected  $90^\circ$  With Lift Jet

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 45.- Effect of Effective Velocity Ratio on Pressure Profile on Fuselage -  
Rear Nozzles Deflected  $90^\circ$  With Lift Jet

- (a)  $\alpha \approx 0^\circ$
- (b)  $\alpha \approx 10^\circ$

Table 46.- Pressure Profile on Wing in Hover - Lift Jet Alone

Table 47.- Pressure Profile on Wing in Hover - Forward Nozzled Deflected  $45^\circ$

Table 48.- Pressure Profile on Wing in Hover - Rear Nozzles Deflected  $45^\circ$

Table 49.- Pressure Profile on Wing in Hover - Forward Nozzles Deflected  $90^\circ$

Table 50.- Pressure Profile on Wing in Hover - Forward Nozzles Deflected  $90^\circ$   
With Flaps

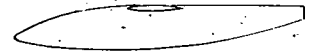
Table 51.- Pressure Profile on Wing in Hover – Rear Nozzles Deflected  $90^{\circ}$

Table 52.- Pressure Profile on Wing in Hover – Rear Nozzles Deflected  $90^{\circ}$   
With Flaps

Table 53.- Pressure Profile on Wing in Hover – Forward Nozzles Deflected  $90^{\circ}$   
With Lift Jet

Table 54.- Pressure Profile on Wing in Hover – Rear Nozzles Deflected  $90^{\circ}$  With  
Lift Jet

TABLE 4 (A)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = .00 DEG			Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.93		.56		.87		.98	
.010	-.02	.15	.49	-.11				
.015					-.18	-.25		
.025	-.404	-.280	-.205	-.291	-.191	-.266	-.190	-.316
.050	-.212	-.161	-.299	-.232	-.200	-.205	-.228	-.164
.100	-.231	-.254	-.194	-.248	-.221	-.264	-.181	-.263
.150	-.298	-.342	-.312	-.304	-.278	-.383	-.226	-.327
.250	-.286	-.343	-.328	-.360	-.315	-.352	-.292	-.316
.400	-.277	-.355	-.290	-.322	-.302	-.322	-.286	-.311
.550	-.194	-.255	-.189	-.232		-.237	-.197	-.235
.700	-.112	-.125	-.098	-.121	-.121	-.129	-.108	-.134
.850	-.024	-.040	-.018	-.037	-.005	-.026	.036	-.022
.950	.057	.053	.051	.063	.060	.061	.062	.070

ALPHA = 4.00 DEG			Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.67		.96		.79		.40	
.010	-1.39	.84	.54	.86				
.015					-1.17	.55		
.025	-1.271	.438	-1.260	.353	-1.110	.341	-.949	.414
.050	-.838	.227	-.756	.251	-.780	.259	-.747	.229
.100	-.575	.077	-.555	.116	-.519	.126	-.544	.082
.150	-.549	-.027	-.561	-.044	-.531	.002	-.525	-.022
.250	-.450	-.137	-.550	-.133	-.498	-.130	-.475	-.133
.400	-.399	-.212	-.422	-.191	-.439	-.159	-.385	-.180
.550	-.270	-.146	-.272	-.130		-.144	-.257	-.138
.700	-.154	-.087	-.155	-.069	-.153	-.081	-.125	-.096
.850	-.043	-.004	-.041	-.004	-.028	-.012	-.023	-.034
.950	.059	.061	.049	.066	.058	.066	.058	.067

ALPHA = 7.96 DEG			Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.91		-.06		-.60		-1.68	
.010	-2.92	.98	.52	.98				
.015					-2.55	.96		
.025	-2.775	.834	-2.583	.745	-2.366	.802	-2.232	.841
.050	-1.322	.565	-1.470	.605	-1.359	.562	-1.250	.575
.100	-1.027	.396	-.998	.415	-1.052	.398	-.967	.356
.150	-.852	.220	-.923	.256	-.930	.272	-.796	.213
.250	-.641	.082	-.714	.101	-.703	.067	-.717	.053
.400	-.511	-.060	-.543	-.013	-.582	-.026	-.494	-.031
.550	-.330	-.047	-.364	-.042		-.027	-.335	-.055
.700	-.190	-.018	-.189	-.004	-.213	-.015	-.178	-.017
.850	-.059	.007	-.053	.013	-.065	.026	-.057	.017
.950	.044	.053	.046	.055	.033	.060	.029	.048

TABLE 4 (A) - CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



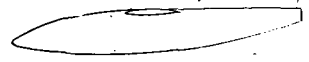
ALPHA = 9.97 DEG		Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
		ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000		-2.21		-.53		-2.29		-3.01	
.010		-3.78	.92	.47	.91				
.015						-3.67	.98		
.025		-3.538	.944	-2.630	.933	-2.982	.914	-2.247	.901
.050		-1.635	.749	-1.775	.723	-1.678	.724	-1.673	.723
.100		-1.164	.540	-1.179	.509	-1.305	.498	-1.122	.475
.150		-.991	.332	-1.005	.327	-1.076	.366	-.963	.301
.250		-.735	.175	-.798	.174	-.819	.158	-.783	.141
.400		-.563	.023	-.599	.020	-.607	.068	-.563	.002
.550		-.361	-.010	-.379	.001		.020	-.364	-.025
.700		-.199	.018	-.206	.019	-.211	.025	-.203	-.008
.850		-.059	.026	-.063	.034	-.057	.034	-.067	.018
.950		.042	.058	.033	.066	.038	.062	.018	.048

ALPHA = 12.01 DEG		Q = 2842 N/SQ.M. (59.37 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
		ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000		-.85		.34		-.20		-.92	
.010		-1.37	.98	.44	.98				
.015						-1.11	.97		
.025		-1.519	.923	-1.231	.900	-1.140	.848	-1.170	.815
.050		-1.395	.739	-1.175	.717	-1.329	.685	-1.071	.655
.100		-1.465	.522	-1.192	.487	-1.149	.492	-1.097	.446
.150		-1.332	.356	-1.210	.335	-1.224	.339	-.997	.292
.250		-.983	.184	-1.034	.172	-.956	.166	-1.020	.115
.400		-.630	.025	-.721	.016	-.772	.018	-.788	-.008
.550		-.421	-.032	-.593	-.029		-.023	-.473	-.062
.700		-.277	-.024	-.399	-.035	-.431	-.050	-.337	-.060
.850		-.173	-.048	-.258	-.030	-.286	-.050	-.230	-.093
.950		-.119	-.070	-.199	-.036	-.212	-.109	-.140	-.042

ALPHA = 14.03 DEG		Q = 2847 N/SQ.M. (59.45 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
		ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000		-.82		.42		.07		-.76	
.010		-1.44	.97	.44	.98				
.015						-.60	.94		
.025		-1.379	.938	-.759	.874	-.586	.843	-.773	.828
.050		-1.552	.770	-.642	.691	-.604	.676	-.818	.663
.100		-1.295	.526	-.711	.502	-.736	.449	-.799	.455
.150		-1.010	.378	-.722	.355	-.601	.352	-.844	.295
.250		-.688	.201	-.824	.191	-.722	.175	-.810	.131
.400		-.705	.007	-.794	.013	-.742	.009	-.846	-.014
.550		-.631	-.045	-.675	-.051		-.063	-.736	-.079
.700		-.483	-.061	-.617	-.082	-.617	-.087	-.681	-.106
.850		-.362	-.118	-.502	-.122	-.525	-.141	-.465	-.138
.950		-.322	-.170	-.405	-.225	-.451	-.233	-.469	-.183

TABLE 4 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

LIFT JET ALONE



ALPHA = 15.98 DEG

Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.29		.50		.10		-.70	
.010	-.47	.96	.45	.98				
.015					-.49	.95		
.025	-.513	.906	-.466	.880	-.529	.847	-.794	.872
.050	-.672	.754	-.538	.728	-.550	.694	-.759	.688
.100	-1.262	.574	-.458	.524	-.511	.512	-.751	.500
.150	-.455	.413	-.617	.379	-.529	.351	-.808	.334
.250	-.511	.192	-.517	.172	-.522	.171	-.804	.157
.400	-.642	.007	-.586	.019	-.611	.006	-.838	-.008
.550	-.584	-.064	-.638	-.076		-.092	-.850	-.084
.700	-.594	-.131	-.554	-.107	-.533	-.145	-.788	-.129
.850	-.588	-.181	-.563	-.203	-.592	-.216	-.664	-.184
.950	-.493	-.300	-.483	-.280	-.565	-.372	-.520	-.272

ALPHA = 18.04 DEG

Q = 2840 N/SQ.M. (59.31 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.21		.42		-.06		-.76	
.010	-.46	.98	.46	.97				
.015					-.53	.97		
.025	-.485	.935	-.457	.899	-.523	.889	-.787	.887
.050	-.451	.782	-.450	.746	-.531	.759	-.745	.733
.100	-.444	.573	-.458	.556	-.513	.558	-.704	.536
.150	-.450	.436	-.454	.402	-.508	.405	-.699	.360
.250	-.454	.236	-.472	.219	-.522	.203	-.737	.174
.400	-.537	.022	-.539	.033	-.573	.029	-.754	.009
.550	-.565	-.074	-.562	-.076		-.075	-.795	-.090
.700	-.595	-.135	-.553	-.116	-.604	-.142	-.782	-.150
.850	-.554	-.237	-.552	-.248	-.612	-.256	-.746	-.249
.950	-.511	-.337	-.518	-.345	-.593	-.389	-.631	-.355

ALPHA = 20.05 DEG

Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.32		.32		-.23		-.84	
.010	-1.35	.86	.46	.95				
.015					-.50	.98		
.025	-1.406	1.000	-.454	.937	-.506	.930	-.682	.919
.050	-1.517	.887	-.455	.804	-.495	.798	-.662	.784
.100	-1.223	.686	-.479	.604	-.499	.612	-.668	.572
.150	-.674	.524	-.441	.496	-.497	.464	-.664	.422
.250	-.499	.331	-.494	.297	-.507	.283	-.686	.227
.400	-.534	.096	-.535	.075	-.573	.084	-.735	.040
.550	-.561	-.021	-.547	-.041		-.032	-.760	-.073
.700	-.617	-.096	-.575	-.106	-.611	-.121	-.786	-.150
.850	-.631	-.213	-.550	-.244	-.509	-.243	-.733	-.269
.950	-.618	-.360	-.524	-.349	-.582	-.396	-.695	-.387



TABLE 4 (B)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = .02 DEG Q = 2844 N/SQ.M. (59.39 LBF/SQ.FT.) EFFECT. VELDC. RATIO = .318

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.92		.64		.92		.97	
.010	-.01	-.15	.23	-.11				
.015					-.14	-.29		
.025	-.389	-.397	-.224	-.219	-.228	-.311	-.223	-.303
.050	-.326	-.336	-.243	-.299	-.358	-.205	-.252	-.216
.100	-.239	-.353	-.244	-.304	-.253	-.282	-.211	-.218
.150	-.321	-.380	-.303	-.413	-.343	-.354	-.274	-.309
.250	-.316	-.435	-.323	-.405	-.326	-.344	-.314	-.328
.400	-.299	-.422	-.328	-.406	-.327	-.364	-.316	-.324
.550	-.206	-.333	-.220	-.292	-.419	-.265	-.219	-.238
.700	-.125	-.177	-.117	-.166	-.115	-.160	-.130	-.140
.850	-.046	-.074	-.043	-.061	-.024	-.063	-.015	-.043
.950	.041	.036	.032	.045	.037	.037	.043	.054

ALPHA = 4.04 DEG Q = 2847 N/SQ.M. (59.47 LBF/SQ.FT.) EFFECT. VELDC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.76		.96		.65		.53	
.010	-1.18	.70	.25	.73				
.015					-1.36	.42		
.025	-1.233	.310	-1.274	.295	-1.182	.339	-1.085	.441
.050	-.825	.163	-.795	.213	-.807	.201	-.834	.279
.100	-.592	.013	-.506	.028	-.617	.072	-.603	.028
.150	-.577	-.128	-.597	-.055	-.558	-.065	-.495	-.042
.250	-.509	-.215	-.522	-.172	-.555	-.176	-.520	-.146
.400	-.412	-.271	-.438	-.244	-.439	-.222	-.406	-.196
.550	-.281	-.229	-.292	-.200	-.490	-.188	-.276	-.185
.700	-.169	-.125	-.166	-.118	-.174	-.101	-.157	-.112
.850	-.062	-.047	-.061	-.042	-.046	-.041	-.037	-.037
.950	.035	.033	.033	.044	.039	.031	.042	.040

ALPHA = 8.01 DEG Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.59		.35		-.50		-1.57	
.010	-2.89	.98	.22	.97				
.015					-2.56	.94		
.025	-2.530	.800	-2.313	.737	-2.344	.744	-2.281	.750
.050	-1.244	.535	-1.413	.529	-1.349	.566	-1.399	.557
.100	-1.028	.313	-.995	.323	-1.022	.347	-1.012	.356
.150	-.884	.180	-.940	.154	-.881	.199	-.834	.203
.250	-.663	-.005	-.739	.006	-.708	.016	-.696	.045
.400	-.526	-.150	-.586	-.104	-.576	-.079	-.527	-.062
.550	-.351	-.141	-.370	-.113	-.538	-.087	-.351	-.082
.700	-.210	-.081	-.218	-.077	-.217	-.057	-.201	-.057
.850	-.074	-.023	-.080	-.015	-.069	-.010	-.074	-.019
.950	.030	.033	.018	.043	.030	.036	.011	.036

TABLE 4 (B) - CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 10.00 DEG      Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.74		-.41		-2.03		-3.08	
.010	-3.86	.95	-.15	.91				
.015					-3.60	.97		
.025	-3.440	.908	-2.764	.884	-2.893	.891	-2.420	.904
.050	-1.628	.654	-1.854	.653	-1.807	.731	-1.626	.728
.100	-1.240	.422	-1.249	.443	-1.236	.483	-1.231	.487
.150	-1.011	.275	-1.112	.279	-1.063	.315	-.972	.275
.250	-.783	.061	-.821	.113	-.847	.116	-.810	.097
.400	-.579	-.063	-.630	-.022	-.639	-.028	-.592	-.006
.550	-.381	-.096	-.406	-.072	-.579	-.042	-.380	-.051
.700	-.219	-.052	-.233	-.040	-.239	-.018	-.213	-.034
.850	-.081	-.025	-.085	-.018	-.082	.001	-.082	-.008
.950	.020	.032	.011	.038	.012	.030	.034	.024

ALPHA = 12.00 DEG      Q = 2848 N/SQ.M. (59.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-2.76		.07		-2.12		-1.47	
.010	-4.56	.81	-.15	.90				
.015					-2.70	.97		
.025	-3.369	.960	-2.709	.924	-1.737	.933	-1.518	.866
.050	-1.833	.770	-2.025	.801	-2.386	.720	-1.283	.696
.100	-1.371	.510	-1.380	.484	-1.688	.526	-1.465	.470
.150	-1.128	.330	-1.158	.338	-1.359	.359	-1.325	.312
.250	-.861	.131	-.876	.161	-.901	.165	-.937	.123
.400	-.617	-.037	-.639	-.009	-.641	.007	-.736	-.004
.550	-.401	-.059	-.517	-.051	-.609	-.056	-.441	-.058
.700	-.247	-.054	-.234	-.054	-.238	-.034	-.250	-.044
.850	-.127	-.057	-.130	-.047	-.169	-.064	-.173	-.062
.950	-.045	-.015	-.080	.013	-.153	-.024	-.125	-.043

ALPHA = 13.96 DEG      Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.71		.33		-.25		-.96	
.010	-1.60	.94	-.15	.97				
.015					-1.02	.96		
.025	-1.936	.951	-.793	.857	-.956	.853	-1.075	.846
.050	-.979	.708	-1.078	.679	-.939	.681	-1.027	.698
.100	-1.334	.478	-1.018	.458	-.982	.482	-1.010	.459
.150	-1.138	.303	-1.014	.303	-.908	.321	-1.093	.305
.250	-1.013	.109	-.937	.138	-.972	.134	-.974	.130
.400	-.805	-.069	-.787	-.045	-.788	-.025	-.854	-.026
.550	-.649	-.125	-.670	-.106	-.663	-.085	-.730	-.082
.700	-.483	-.107	-.522	-.105	-.554	-.094	-.632	-.102
.850	-.474	-.148	-.475	-.167	-.438	-.138	-.389	-.135
.950	-.277	-.150	-.311	-.224	-.362	-.225	-.304	-.213

TABLE 4 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 16.06 DEG

Q = 2842 N/SQ.M. (59.36 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.14		.49		-.04		-.92	
.010	-.72	.97	.16	.98				
.015					-.57	.94		
.025	-.610	.884	-.667	.852	-.620	.832	-.893	.864
.050	-.512	.691	-.540	.689	-.639	.689	-.834	.706
.100	-1.042	.458	-.696	.455	-.647	.492	-.839	.505
.150	-.536	.303	-.734	.311	-.657	.334	-.838	.331
.250	-.805	.084	-.626	.131	-.659	.149	-.894	.140
.400	-.643	-.079	-.667	-.065	-.649	-.053	-.929	-.022
.550	-.703	-.145	-.663	-.158	-.681	-.135	-.852	-.100
.700	-.674	-.192	-.658	-.166	-.671	-.175	-.770	-.135
.850	-.591	-.246	-.553	-.236	-.586	-.228	-.612	-.204
.950	-.461	-.307	-.519	-.283	-.543	-.377	-.483	-.255

ALPHA = 18.03 DEG

Q = 2844 N/SQ.M. (59.39 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .319

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.27		.47		-.09		-.93	
.010	-.53	.99	.19	.97				
.015					-.50	.96		
.025	-.564	.909	-.513	.868	-.579	.875	-.832	.885
.050	-.482	.731	-.513	.708	-.564	.728	-.799	.747
.100	-.559	.503	-.512	.493	-.549	.512	-.773	.520
.150	-.489	.350	-.515	.341	-.584	.359	-.772	.348
.250	-.490	.136	-.523	.153	-.580	.179	-.791	.167
.400	-.674	-.088	-.582	-.052	-.620	-.027	-.871	-.014
.550	-.618	-.178	-.586	-.154	-.682	-.124	-.865	-.111
.700	-.671	-.208	-.619	-.166	-.640	-.190	-.845	-.173
.850	-.586	-.288	-.584	-.298	-.643	-.293	-.778	-.246
.950	-.566	-.368	-.544	-.379	-.598	-.390	-.631	-.351

ALPHA = 20.00 DEG

Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .318

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.42		.25		-.21		-1.03	
.010	-.56	.96	.19	.95				
.015					-.56	.97		
.025	-.561	.944	-.525	.921	-.524	.909	-.769	.909
.050	-.534	.803	-.536	.757	-.529	.778	-.736	.775
.100	-.575	-.564	-.497	.571	-.545	.595	-.795	.563
.150	-.492	.406	-.535	.391	-.549	.419	-.774	.393
.250	-.680	.179	-.527	.193	-.557	.213	-.765	.197
.400	-.646	-.024	-.655	-.004	-.622	-.003	-.827	.011
.550	-.661	-.147	-.685	-.120	-.668	-.106	-.859	-.089
.700	-.671	-.196	-.627	-.170	-.639	-.180	-.844	-.177
.850	-.621	-.263	-.594	-.285	-.559	-.279	-.803	-.276
.950	-.602	-.389	-.586	-.386	-.618	-.423	-.734	-.374

TABLE 4 (C)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = -0.02 DEG      Q = 2746 N/SQ.M. (57.35 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.78		.56		.86		.97	
.010	.01	-.16	.23	-.29				
.015					-.04	-.34		
.025	-.215	-.500	-.280	-.510	-.228	-.406	-.085	-.410
.050	-.203	-.355	-.270	-.412	-.233	-.341	-.276	-.190
.100	-.200	-.402	-.182	-.359	-.208	-.320	-.188	-.280
.150	-.286	-.438	-.260	-.422	-.277	-.387	-.252	-.334
.250	-.258	-.478	-.288	-.457	-.370	-.407	-.332	-.332
.400	-.280	-.450	-.310	-.432	-.318	-.398	-.295	-.345
.550	-.206	-.312	-.219	-.312	-.598	-.282	-.229	-.258
.700	-.117	-.174	-.113	-.171	-.120	-.149	-.098	-.145
.850	-.036	-.065	-.039	-.065	-.025	-.062	-.020	-.055
.950	.039	.036	.031	.041	.037	.039	.037	.048

ALPHA = 4.00 DEG      Q = 2752 N/SQ.M. (57.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.82		.98		.82		.54	
.010	-1.00	.75	.33	.62				
.015					-1.00	.45		
.025	-1.160	.241	-1.136	.317	-1.085	.347	-1.011	.326
.050	-.766	.182	-.732	.190	-.805	.138	-.782	.231
.100	-.607	-.106	-.588	-.011	-.611	.075	-.568	.065
.150	-.549	-.208	-.580	-.143	-.562	-.085	-.513	-.060
.250	-.494	-.246	-.527	-.207	-.499	-.204	-.510	-.165
.400	-.416	-.277	-.435	-.264	-.440	-.253	-.397	-.214
.550	-.279	-.206	-.285	-.203	-.473	-.199	-.282	-.178
.700	-.167	-.130	-.171	-.121	-.169	-.126	-.147	-.105
.850	-.062	-.043	-.067	-.036	-.050	-.046	-.042	-.039
.950	.031	.036	.025	.038	.029	.030	.039	.040

ALPHA = 8.04 DEG      Q = 2749 N/SQ.M. (57.41 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.34		.32		-.46		-1.34	
.010	-2.72	.98	.37	.97				
.015					-2.42	.88		
.025	-2.276	.758	-2.462	.714	-2.505	.807	-2.213	.744
.050	-1.309	.526	-1.297	.595	-1.485	.485	-1.300	.542
.100	-1.042	.267	-.974	.266	-.998	.312	-.969	.328
.150	-.837	.079	-.912	.126	-.868	.140	-.854	.177
.250	-.666	-.048	-.711	-.026	-.704	.033	-.688	.006
.400	-.528	-.159	-.547	-.135	-.564	-.102	-.506	-.087
.550	-.355	-.131	-.373	-.131	-.423	-.101	-.348	-.095
.700	-.212	-.063	-.219	-.072	-.214	-.061	-.197	-.064
.850	-.079	-.019	-.083	-.017	-.065	-.019	-.074	-.018
.950	.028	.039	.016	.042	.026	.038	.013	.031

TABLE 4 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 9.96 DEG      Q = 2748 N/SQ.M. (57.39 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000	-1.42		-1.12		-1.23		-3.03	
.010	-3.93	.97	.38	.95				
.015					-3.59	.97		
.025	-3.070	.897	-2.838	.861	-2.990	.863	-2.346	.887
.050	-1.584	.642	-1.654	.698	-1.826	.701	-1.573	.678
.100	-1.127	.373	-1.189	.401	-1.284	.436	-1.178	.491
.150	-.956	.255	-1.040	.249	-1.025	.272	-1.032	.277
.250	-.761	.027	-.827	.086	-.810	.116	-.820	.075
.400	-.574	-.076	-.531	-.076	-.628	-.014	-.589	-.028
.550	-.388	-.098	-.399	-.078	-.378	-.056	-.384	-.038
.700	-.223	-.042	-.228	-.042	-.239	-.029	-.218	-.032
.850	-.084	-.009	-.085	-.009	-.081	-.000	-.039	-.006
.950	.022	.029	.007	.036	.016	.027	.001	.036

ALPHA = 11.98 DEG      Q = 2749 N/SQ.M. (57.42 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000	-3.00		-1.06		-3.05		-4.76	
.010	-4.69	.85	.28	.81				
.015					-4.54	.97		
.025	-3.385	.964	-3.118	.942	-3.256	.948	-2.857	.952
.050	-1.885	.767	-2.133	.744	-2.063	.767	-2.088	.776
.100	-1.377	.520	-1.380	.531	-1.455	.555	-1.402	.524
.150	-1.133	.377	-1.202	.365	-1.204	.385	-1.117	.366
.250	-.838	.143	-.901	.156	-.903	.167	-.885	.201
.400	-.627	-.045	-.676	.009	-.634	.028	-.628	.035
.550	-.405	-.048	-.433	-.031	-.399	-.011	-.410	-.024
.700	-.235	-.013	-.241	-.011	-.238	-.004	-.235	-.024
.850	-.090	-.005	-.088	-.001	-.087	.007	-.130	-.010
.950	.006	.025	-.003	.030	-.001	.021	-.011	.016

ALPHA = 14.02 DEG      Q = 2748 N/SQ.M. (57.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000	-.71		.18		-.44		-.91	
.010	-1.44	.97	.31	.96				
.015					-1.20	.96		
.025	-1.320	.950	-1.458	.893	-1.316	.855	-1.067	.859
.050	-1.176	.745	-1.291	.689	-1.334	.704	-1.028	.679
.100	-1.299	.480	-1.215	.474	-1.021	.491	-1.108	.470
.150	-1.175	.312	-1.140	.317	-1.054	.331	-1.023	.302
.250	-1.004	.117	-1.021	.129	-.942	.149	-1.024	.130
.400	-.793	-.042	-.773	-.039	-.778	-.021	-.848	-.023
.550	-.561	-.090	-.593	-.088	-.450	-.068	-.765	-.089
.700	-.453	-.087	-.395	-.084	-.501	-.083	-.517	-.099
.850	-.366	-.114	-.327	-.098	-.379	-.139	-.443	-.152
.950	-.262	-.134	-.258	-.199	-.286	-.226	-.325	-.143

TABLE 4 (C) - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 16.00 DEG Q = 2748 N/SQ.M. (57.39 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.46		.43		-.09		-.94	
.010	-.98	.97	.35	.97				
.015					-.74	.95		
.025	-.661	.919	-.823	.855	-.749	.854	-.875	.860
.050	-1.191	.720	-.725	.683	-.694	.698	-.883	.699
.100	-1.135	.486	-.666	.465	-.775	.492	-.871	.500
.150	-.944	.326	-.704	.351	-.802	.332	-.911	.322
.250	-.964	.128	-.775	.128	-.753	.136	-.968	.133
.400	-.791	-.048	-.817	-.042	-.733	-.028	-.946	-.030
.550	-.798	-.115	-.713	-.110	-.475	-.096	-.865	-.100
.700	-.710	-.117	-.654	-.134	-.702	-.135	-.769	-.124
.850	-.468	-.200	-.529	-.183	-.591	-.212	-.650	-.181
.950	-.431	-.253	-.464	-.242	-.479	-.291	-.517	-.246

ALPHA = 17.98 DEG Q = 2746 N/SQ.M. (57.35 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.36		.37		-.11		-1.12	
.010	-.70	.97	.36	.97				
.015					-.64	.96		
.025	-.631	.923	-.647	.881	-.652	.871	-.947	.886
.050	-.734	.734	-.576	.722	-.585	.719	-.945	.754
.100	-.588	.541	-.565	.517	-.601	.531	-.864	.544
.150	-.611	.337	-.587	.349	-.614	.373	-.884	.358
.250	-.636	.154	-.670	.160	-.614	.181	-.880	.186
.400	-.739	-.038	-.643	-.023	-.658	-.031	-.956	.007
.550	-.790	-.131	-.724	-.108	-.483	-.101	-.939	-.093
.700	-.726	-.152	-.739	-.146	-.719	-.165	-.930	-.144
.850	-.656	-.226	-.627	-.252	-.677	-.251	-.741	-.223
.950	-.553	-.317	-.553	-.326	-.572	-.396	-.592	-.297

ALPHA = 19.98 DEG Q = 2744 N/SQ.M. (57.32 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .198

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.52		.29		-.22		-1.18	
.010	-.62	.96	.37	.94				
.015					-.62	.97		
.025	-.660	.953	-.594	.914	-.594	.903	-.879	.918
.050	-.638	.821	-.559	.774	-.612	.769	-.876	.791
.100	-.611	.585	-.533	.558	-.598	.599	-.853	.589
.150	-.622	.425	-.594	.406	-.605	.428	-.916	.427
.250	-.665	.199	-.621	.191	-.652	.227	-.840	.221
.400	-.768	.002	-.703	.009	-.704	.006	-.952	.033
.550	-.746	-.110	-.682	-.101	-.496	-.090	-.957	-.077
.700	-.810	-.150	-.716	-.135	-.737	-.148	-.952	-.164
.850	-.711	-.229	-.667	-.265	-.706	-.263	-.893	-.248
.950	-.624	-.344	-.568	-.359	-.624	-.403	-.759	-.365

TABLE 4 (D)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = .02 DEG Q = 692 N/SQ.M. (14.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.69		.09		.57		.92	
.010	.28	-.67	-1.31	-.74				
.015					.18	-.82		
.025	-.070	-.688	-.070	-.609	.021	-.549	-.022	-.502
.050	-.115	-.652	-.070	-.559	-.183	-.509	-.167	-.349
.100	-.106	-.479	-.170	-.413	-.188	-.420	-.147	-.356
.150	-.206	-.597	-.254	-.534	-.183	-.472	-.201	-.356
.250	-.247	-.505	-.227	-.434	-.238	-.408	-.247	-.372
.400	-.252	-.448	-.243	-.412	-.277	-.387	-.255	-.338
.550	-.173	-.316	-.175	-.329		-.299	-.186	-.268
.700	-.095	-.166	-.122	-.175	-.128	-.161	-.111	-.165
.850	-.016	-.067	-.028	-.071	-.014	-.059	-.005	-.048
.950	.042	.042	.036	.043	.047	.051	.050	.051

ALPHA = 3.96 DEG Q = 690 N/SQ.M. (14.41 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.86		.85		.90		.70	
.010	-.60	.18	-1.24	.49				
.015					-.64	.17		
.025	-.705	-.091	-.749	.023	-.769	.018	-.867	.153
.050	-.518	-.194	-.546	.007	-.557	-.062	-.600	-.039
.100	-.427	-.183	-.400	-.190	-.416	-.139	-.427	-.053
.150	-.461	-.263	-.486	-.231	-.479	-.199	-.454	-.203
.250	-.416	-.331	-.418	-.322	-.409	-.276	-.447	-.226
.400	-.356	-.330	-.374	-.287	-.363	-.318	-.356	-.262
.550	-.248	-.285	-.252	-.253		-.222	-.254	-.216
.700	-.137	-.147	-.135	-.133	-.145	-.150	-.123	-.137
.850	-.051	-.047	-.040	-.037	-.034	-.050	-.040	-.055
.950	.032	.045	.049	.050	.038	.042	.025	.037

ALPHA = 7.99 DEG Q = 687 N/SQ.M. (14.35 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.13		.64		.01		-.70	
.010	-1.80	.82	-1.23	.89				
.015					-1.94	.72		
.025	-1.662	.546	-1.632	.496	-1.989	.613	-1.719	.601
.050	-1.061	.360	-1.214	.367	-1.159	.326	-1.205	.413
.100	-.779	.186	-.788	.150	-.864	.260	-.845	.218
.150	-.708	-.018	-.738	.046	-.767	.017	-.699	-.095
.250	-.614	-.136	-.628	-.105	-.651	-.081	-.625	-.049
.400	-.466	-.157	-.486	-.171	-.501	-.131	-.462	-.122
.550	-.304	-.171	-.324	-.139		-.127	-.333	-.136
.700	-.181	-.098	-.178	-.079	-.201	-.080	-.183	-.085
.850	-.063	-.023	-.064	-.019	-.063	-.028	-.077	-.027
.950	.035	.037	.021	.040	.021	.041	.006	.027

TABLE 4 (D) - CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALCNE



ALPHA = 9.95 DEG. Q = 686 N/SQ.M. (14.33 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.53		.05		-.48		-2.21	
.010	-2.80	.93	-1.18	.93				
.015					-2.67	.90		
.025	-2.238	.762	-2.077	.746	-2.405	.739	-2.339	.771
.050	-1.361	.501	-1.409	.523	-1.388	.551	-1.281	.592
.100	-1.030	.312	-1.056	.317	-1.076	.319	-.994	.317
.150	-.842	.113	-.900	.145	-.861	.198	-.847	.179
.250	-.670	-.017	-.679	.057	-.734	.010	-.716	.022
.400	-.497	-.134	-.538	-.103	-.548	-.047	-.521	-.056
.550	-.335	-.079	-.355	-.103		-.085	-.341	-.100
.700	-.199	-.045	-.201	-.044	-.209	-.036	-.196	-.067
.850	-.065	-.001	-.061	.006	-.073	-.004	-.079	-.027
.950	-.029	-.038	-.024	-.045	-.006	-.035	-.002	-.015

ALPHA = 12.06 DEG. Q = 688 N/SQ.M. (14.37 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.89		-.33		-2.01		-3.53	
.010	-3.43	.91	-1.16	.84				
.015					-3.81	.93		
.025	-3.129	.869	-2.795	.825	-2.987	.862	-2.713	.887
.050	-1.603	.635	-1.774	.679	-1.747	.661	-1.637	.718
.100	-1.278	.377	-1.216	.480	-1.237	.491	-1.152	.473
.150	-.992	.269	-1.035	.306	-1.067	.281	-.969	.306
.250	-.802	.094	-.774	.109	-.809	.120	-.786	.104
.400	-.541	-.005	-.579	-.035	-.597	-.008	-.571	-.015
.550	-.354	-.079	-.364	-.052		-.021	-.384	-.050
.700	-.206	-.031	-.199	-.014	-.220	-.011	-.212	-.030
.850	-.072	-.001	-.073	-.012	-.073	-.018	-.086	-.010
.950	-.017	.032	-.004	.031	.009	.011	-.007	.021

ALPHA = 14.00 DEG. Q = 689 N/SQ.M. (14.40 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.91		-.73		-2.12		-1.98	
.010	-3.03	.89	-1.25	.82				
.015					-3.95	.94		
.025	-2.540	.894	-2.586	.896	-2.862	.903	-2.289	.889
.050	-1.777	.702	-1.770	.700	-1.909	.732	-1.628	.750
.100	-1.494	.490	-1.418	.508	-1.434	.522	-1.544	.508
.150	-1.256	.314	-1.233	.357	-1.194	.343	-1.297	.337
.250	-.840	.150	-.936	.157	-.874	.179	-.868	.171
.400	-.644	-.006	-.593	-.017	-.618	.023	-.586	.011
.550	-.357	-.067	-.389	-.043		-.023	-.385	-.038
.700	-.234	-.025	-.270	-.008	-.264	-.033	-.391	-.037
.850	-.102	-.017	-.129	-.025	-.103	-.032	-.188	-.061
.950	-.022	-.011	-.109	-.028	-.043	-.045	-.076	-.036



TABLE 4 (D) - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 15.98 DEG Q = 691 N/SQ.M. (14.42 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.33		.04		-1.19		-1.15	
.010	-1.52	.89	-1.17	.89				
.015					-1.43	.95		
.025	-2.327	.896	-1.978	.880	-1.492	.862	-1.109	.857
.050	-1.232	.684	-1.376	.707	-1.289	.693	-1.282	.691
.100	-1.396	.488	-1.371	.472	-1.988	.499	-1.036	.485
.150	-1.248	.312	-1.193	.337	-1.102	.337	-1.077	.335
.250	-1.050	.128	-.958	.153	-.913	.144	-1.086	.139
.400	-.687	-.023	-.748	.005	-.717	-.023	-.846	-.001
.550	-.551	-.073	-.613	-.057		-.064	-.684	-.066
.700	-.253	-.068	-.496	-.073	-.372	-.068	-.566	-.074
.850	-.311	-.098	-.286	-.109	-.374	-.131	-.352	-.106
.950	-.162	-.097	-.277	-.151	-.289	-.163	-.298	-.182

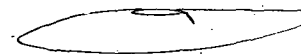
ALPHA = 17.98 DEG Q = 694 N/SQ.M. (14.49 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.45		.29		-.24		-.89	
.010	-1.10	.93	-1.10	.93				
.015					-.99	.95		
.025	-1.079	.881	-.934	.867	-.772	.851	-.811	.867
.050	-1.027	.722	-.847	.706	-.766	.715	-.875	.710
.100	-.904	.483	-1.063	.483	-.800	.501	-.888	.492
.150	-.999	.320	-.884	.324	-.718	.370	-.843	.327
.250	-.979	.146	-.954	.125	-.793	.154	-.943	.144
.400	-.756	-.038	-.705	-.048	-.757	-.016	-.940	-.012
.550	-.713	-.088	-.664	-.101		-.083	-.860	-.077
.700	-.597	-.110	-.640	-.125	-.650	-.118	-.822	-.111
.850	-.468	-.134	-.510	-.167	-.495	-.173	-.658	-.181
.950	-.398	-.190	-.468	-.239	-.425	-.258	-.508	-.301

ALPHA = 20.05 DEG Q = 696 N/SQ.M. (14.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.48		.28		-.16		-.94	
.010	-.75	.94	-1.03	.94				
.015					-.68	.96		
.025	-.723	.924	-.692	.881	-.622	.874	-.807	.890
.050	-.769	.743	-.662	.741	-.585	.734	-.789	.743
.100	-.726	.510	-.637	.508	-.692	.517	-.766	.530
.150	-.825	.370	-.674	.372	-.615	.381	-.816	.374
.250	-.839	.144	-.597	.154	-.615	.172	-.818	.171
.400	-.794	-.028	-.653	-.010	-.671	-.000	-.855	.002
.550	-.779	-.075	-.731	-.093		-.099	-.856	-.077
.700	-.711	-.105	-.703	-.128	-.676	-.146	-.861	-.156
.850	-.662	-.181	-.595	-.222	-.635	-.231	-.757	-.230
.950	-.519	-.310	-.531	-.316	-.543	-.316	-.627	-.378

TABLE 5  
PRESSURE PROFILE ON WING  
LIFT JET ALONE WITH FLAPS

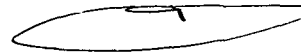


ALPHA = .00 DEG		Q = 2762 N/SQ.M. (57.69 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387		ETA = .524		ETA = .800				
X/C	CP	LOWER	UPPER	CP	LOWER	UPPER	CP	LOWER	UPPER	CP	LOWER
.000	.81		.98			.84			.77		
.010	-1.10	.70	.70	.67							
.015						-.84	.40				
.025	-1.054	.245	-.884	.297		-1.018	.228		-.646	.203	
.050	-.704		-.641	.202		-.714	.250		-.498	.128	
.100	-.534	.140	-.567	.143		-.506	.082		-.401	-.026	
.150	-.555	-.006	-.567	.031		-.494	-.009		-.464	-.098	
.250	-.533	.007	-.523	.006		-.531	-.013		-.465	-.171	
.400	-.498	.048	-.501	.036		-.521	.002		-.433	-.182	
.550	-.410	.170	-.420	.170			.115		-.312	-.113	
.700	-.342	.354	-.346	.360		-.341	.322		-.182	-.065	
.850	-.291	.559	-.295	.570		-.282			-.095	-.007	
.950	-.234	.655	-.257	.643		-.266	.622		-.006	.058	

ALPHA = 4.02 DEG		Q = 2772 N/SQ.M. (57.93 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000		-.31		.32		-.25		-.57	
.010		-2.53	.98	.69	.97				
.015						-2.12	.88		
.025		-2.134	.759		.714	-2.113	.745	-1.631	.635
.050		-1.200	.611	-1.318	.615	-1.192	.539	-1.158	.469
.100		-.991	.377	-.965	.402	-.942	.374	-.808	.271
.150		-.858	.254	-.885	.284	-.892	.271	-.757	
.250		-.708	.191	-.728	.197	-.748	.167	-.686	-.010
.400		-.609	.158	-.653	.163	-.663	.131	-.528	-.051
.550		-.489	.267	-.525	.228		.219	-.390	-.038
.700		-.398	.411	-.409	.411	-.401	.370	-.253	.009
.850		-.327	.597	-.335	.601	-.316	.557	-.131	.005
.950		-.250	.678	-.264	.677	-.277	.670	-.039	.032

ALPHA = 8.00 DEG.			Q = 2847 N/SQ.M. (59.43 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP				
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
.000	-3.09		-1.19		-2.72		-3.76				
.010	-3.08	.83	.61	.80							
.015					-4.56	.96					
.025	-3.418	.976	-3.329	.964	-2.926	.950	-2.438	.930			
.050	-1.907	.843	-2.052	.831	-2.127	.802	-1.820	.747			
.100	-1.362	.613	-1.449	.629	-1.419	.636	-1.239	.516			
.150	-1.167	.495	-1.224	.480	-1.233	.464	-1.075	.331			
.250	-.921	.360	-.969	.373	-.965	.354	-.893	.189			
.400	-.754	.289	-.807	.281	-.805	.276	-.659	.059			
.550	-.569	.339	-.608	.328		.299	-.476	.031			
.700	-.457	.474	-.464	.466	-.463	.406	-.299	.029			
.850	-.359	.629	-.374	.653	-.352	.587	-.165	.018			
.950	-.265	.699	-.295	.695	-.296	.663	-.057	.008			

TABLE 5 - CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE WITH FLAPS



ALPHA = 10.04 DEG      Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.20		.08		-.49		-1.37	
.010	-1.54	.93	.58	.93				
.015					-1.22	.97		
.025	-1.477	.978	-1.278	.932	-1.100	.904	-1.401	.875
.050	-1.536	.820	-1.287	.791	-1.158	.773	-1.515	.723
.100	-1.447	.645	-1.246	.624	-1.187	.610	-1.374	.499
.150	-1.515	.526	-1.274	.502	-1.192	.492	-1.410	.363
.250	-1.312	.403	-1.275	.390	-1.237	.354	-1.388	.199
.400	-1.084	.330	-1.176	.319	-1.161	.279	-1.102	.082
.550	-.827	.370	-.928	.364		.321	-.802	.032
.700	-.634	.499	-.642	.494	-.809	.419	-.556	.013
.850	-.459	.644	-.622	.645	-.596	.600	-.328	-.016
.950	-.391	.716	-.467	.702	-.572	.662	-.199	-.055

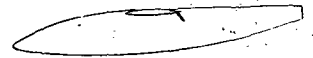
ALPHA = 12.03 DEG      Q = 2848 N/SQ.M. (59.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.63		.15		-.29		-1.18	
.010	-2.13	.86	.56	.94				
.015					-.81	.97		
.025	-2.157	.994	-.862	.941	-.806	.914	-1.112	.882
.050	-2.205	.881	-.751	.821	-.881	.777	-1.136	.738
.100	-1.538	.697	-.770	.645	-.772	.642	-1.110	.532
.150		.570	-.803	.538	-.795	.521	-1.139	.396
.250	-.817	.437	-.896	.419	-.882	.380	-1.139	.225
.400	-1.010	.357	-.922	.340	-.955	.304	-1.151	.118
.550	-.955	.387	-.954	.378		.335	-1.081	.035
.700	-.936	.502	-.882	.495	-.843	.408	-.877	.001
.850	-.772	.654	-.770	.650	-.778	.600	-.590	-.038
.950	-.678	.722	-.721	.709	-.714	.666	-.418	-.131

ALPHA = 14.01 DEG      Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.67		.12				-1.16	
.010	-1.85	.82	.54	.91				
.015					-.72	.97		
.025	-1.885	.998	-.763	.959	-.732	.929	-1.035	.897
.050	-1.955	.894	-.729	.853	-.698	.822	-1.051	.755
.100	-1.606	.732	-.753	.694	-.699	.679	-.997	.572
.150	-1.920	.599	-.731	.576	-.707	.550	-1.022	.426
.250	-.819	.478	-.760	.448	-.756	.419	-1.093	
.400	-.793	.375	-.843	.367	-.816	.326	-1.055	.112
.550	-.851	.406	-.890	.395		.352	-1.090	.033
.700	-.858	.494	-.847	.491	-.811	.414	-.946	-.011
.850	-.810	.656	-.801	.654	-.764	.603	-.746	-.104
.950	-.714	.720	-.753	.712	-.724	.665	-.572	-.220

TABLE 5 - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE WITH FLAPS



ALPHA = 16.05 DEG			Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
ETA = .250			ETA = .387			ETA = .524		
X/C	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER
.000	-1.74		-.10		-.48		-1.08	
.010	-1.77	.76	.51	.87				
.015					-.72	.96		
.025	-1.804	1.000	-.752	.977	-.736	.960	-.831	.918
.050	-1.904	.935	-.731	.882	-.741	.863	-.811	.786
.100	-1.531	.780	-.782	.735	-.731	.727	-.813	.589
.150	-.947	.647	-.742	.627	-.716	.606	-.806	.455
.250	-.774		-.790	.493	-.731	.461	-.792	.290
.400	-.823	.423	-.811	.396	-.786	.356	-.900	
.550	-.832	.434	-.833	.415		.387	-.958	.031
.700	-.837	.494	-.827	.484	-.798	.433	-.921	-.041
.850	-.798		-.787	.682	-.760	.608	-.916	-.162
.950	-.751	.721	-.776	.708	-.791	.664	-.758	-.312

ALPHA = 18.00 DEG			Q = 2849 N/SQ.M. (59.51 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
ETA = .250			ETA = .387			ETA = .524		
X/C	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER
.000	-.81		-.11		-.48		-.92	
.010	-.81	.85	.49	.82				
.015					-.67	.96		
.025	-.622	.999	-.717	.985	-.632	.963	-.743	.921
.050	-.662	.934		.912	-.645	.879	-.682	
.100	-.677	.797	-.619	.761	-.721	.749	-.705	.638
.150	-.633	.672	-.660	.651	-.611	.636	-.728	.475
.250	-.800	.551	-.557	.549	-.672	.496	-.693	.302
.400	-.766	.439	-.857	.421	-.734	.390	-.704	.145
.550	-.837	.455	-.788	.445		.388	-.782	.038
.700	-.675	.503	-.715	.509	-.661	.450	-.791	-.047
.850	-.745	.668	-.780	.665	-.723	.619	-.764	-.190
.950	-.755	.734	-.887	.717	-.709	.666	-.774	-.372

ALPHA = 20.01 DEG			Q = 2848 N/SQ.M. (59.49 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞		
ETA = .250			ETA = .387			ETA = .524		
X/C	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER	UPPER CP	LOWER
.000	-.74		-.14		-.58		-.98	
.010	-.59	.80	.46	.80				
.015					-.61	.95		
.025	-.664	1.008	-.629	.990	-.617	.970	-.714	.940
.050	-.585	.966	-.632	.936	-.597	.908	-.738	.857
.100	-.651	.854	-.607	.806	-.621	.794	-.718	.684
.150	-.594	.727	-.588	.709	-.585	.696	-.631	.536
.250	-.634	.589	-.807	.580	-.777	.530	-.697	.373
.400	-.650	.486	-.823	.466	-.645	.425	-.718	.192
.550	-.643	.472	-.650	.464		.436	-.840	.075
.700	-.741	.532	-.841	.524	-.663	.476	-.863	-.017
.850	-.707	.691	-.726	.682	-.699	.623	-.778	
.950	-.748	.720	-.752	.724	-.724	.669	-.779	-.363

TABLE 6 (A)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = -0.02 DEG      Q = 2841 N/SQ.M. (59.33 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.443		.866		.987	
.010			.729	-.253				
.015					-.016	-.375		
.025			-.245	-.629	-.095	-.470	-.137	-.346
.050			-.271	-.409	-.211	-.339	-.221	-.293
.100			-.323	-.434	-.190	-.314	-.226	-.241
.150			-.276	-.413	-.253	-.325	-.227	-.280
.250	-.241		-.310	-.307	-.336	-.356	-.293	-.330
.400	-.299		-.314	-.229	-.307	-.324	-.288	-.304
.550	-.218	-.065	-.229	-.112	-.230	-.214	-.205	-.239
.700	-.152	-.047	-.123	-.043	-.118	-.084	-.100	-.115
.850	-.068	-.020	-.058	-.019	-.013	-.010	-.005	-.026
.950	-.041	.002	.005	.040	.057	.070	.063	.070

ALPHA = 3.98 DEG      Q = 2846 N/SC.M. (59.44 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.00		.889		.601	
.010			.793	.590				
.015					-.963	.370		
.025			-1.025	.233	-1.172	.301	-1.145	.414
.050			-.767	.154	-.790	.163	-.728	.237
.100			-.546	-.029	-.617	.060	-.590	.060
.150			-.541	-.047	-.585	-.063	-.502	-.031
.250	-.329		-.512	-.169	-.501	-.142	-.483	-.146
.400	-.358		-.436	-.139	-.424	-.177	-.389	-.171
.550	-.257	-.015	-.282	-.070	-.300	-.121	-.260	-.154
.700	-.162	.006	-.165	-.005	-.158	-.068	-.131	-.096
.850	-.073	.023	-.064	.026	-.030	.011	-.022	-.024
.950	-.002	.039	.023	.072	.062	.067	.059	.065

ALPHA = 7.98 DEG      Q = 2847 N/SC.M. (59.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.536		-.512		-1.543	
.010			.678	1.0				
.015					-2.827	.957		
.025			-2.199	.755	-2.219	.769	-2.468	.749
.050			-1.160	.502	-1.462	.564	-1.430	.593
.100			-.908	.329	-1.061	.384	-.927	.367
.150			-.800	.228	-.864	.184	-.886	.194
.250	-.427		-.661	.055	-.704	.078	-.692	.062
.400	-.415		-.515	-.034	-.547	-.024	-.528	-.078
.550	-.294	.023	-.329	-.010	-.362	-.046	-.354	-.057
.700	-.175	.042	-.189	.029	-.197	-.013	-.193	-.045
.850	-.064	.050	-.055	.054	-.053	.032	-.068	-.003
.950	.017	.057	.037	.083	.048	.061	.017	.035

TABLE 6 (A) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = 9.99 DEG      Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.090		-1.758		-3.216	
.010			.449	.993				
.015					-3.637	.999		
.025			-2.597	.894	-3.136	.906	-2.325	.887
.050			-1.660	.713	-1.768	.714	-1.662	.719
.100			-1.107	.493	-1.224	.489	-1.196	.452
.150			-.962	.319	-1.035	.346	-.969	.287
.250	-.463		-.738	.156	-.793	.152	-.790	.126
.400	-.443		-.554	.031	-.607	.022	-.570	.011
.550	-.304	.038	-.357	.022	-.385	.007	-.370	-.029
.700	-.172	.056	-.158	.038	-.210	.024	-.206	-.013
.850	-.059	.058	-.053	.059	-.056	.045	-.071	.015
.950	.014	.063	.043	.088	.042	.069	.019	.046

ALPHA = 11.99 DEG      Q = 2849 N/SQ.M. (59.49 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.314		-.313		-.991	
.010			.430	.987				
.015					-1.199	.974		
.025			-1.161	.924	-1.137	.857	-1.270	.841
.050			-1.786	.747	-1.323	.694	-1.197	.669
.100			-1.267	.512	-.985	.486	-1.080	.453
.150			-1.421	.352	-1.126	.331	-1.105	.300
.250	-.597		-.960	.165	-.989	.160	-.970	.125
.400	-.524		-.695	.030	-.730	.013	-.683	-.004
.550	-.389	.039	-.510	.015	-.519	-.016	-.539	-.057
.700	-.223	.036	-.359	.027	-.339	-.023	-.384	-.060
.850	-.116	.044	-.215	.019	-.252	-.038	-.211	-.071
.950	-.009	.053	-.042	.004	-.194	-.071	-.135	-.074

ALPHA = 15.96 DEG      Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.438		.132		-.685	
.010			.529	1.0				
.015					-.439	.973		
.025			-.454	.938	-.457	.874	-.745	.872
.050			-.479	.789	-.422	.717	-.709	.692
.100			-.536	.602	-.408	.537	-.742	.493
.150			-.459	.395	-.448	.368	-.723	.326
.250	-.480		-.521	.211	-.468	.181	-.712	.155
.400	-.548		-.619	.009	-.538	.018	-.781	-.003
.550	-.618	-.041	-.637	-.032	-.573	-.049	-.760	-.085
.700	-.633	-.040	-.609	-.060	-.599	-.094	-.737	-.133
.850	-.573	-.094	-.575	-.139	-.544	-.181	-.653	-.191
.950	-.401	-.168	-.524	-.237	-.467	-.282	-.542	-.263

TABLE 6 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = 19.97 DEG      Q = 2840 N/SC.M. (59.31 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.121		-.114		-.793	
.010			.454	.926				
.015					-.438	1.0		
.025			-.474	1.00	-.425	.963	-.602	.932
.050			-.465	.910	-.417	.829	-.611	.796
.100			-.469	.715	-.428	.648	-.566	.590
.150			-.491	.545	-.426	.489	-.609	.425
.250	-.482		-.509	.280	-.443	.284	-.596	.236
.400	-.545		-.539	.061	-.527	.085	-.659	.049
.550	-.593	-.044	-.577	-.016	-.550	-.006	-.680	-.066
.700	-.611	-.066	-.593	-.056	-.559	-.079	-.730	-.156
.850	-.641	-.140	-.585	-.171	-.538	-.192	-.724	-.267
.950	-.629	-.283	-.559	-.316	-.477	-.306	-.691	-.403

ALPHA = -.03 DEG      Q = 2840 N/SC.M. (59.32 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.315		.842		.992	
.010			.523	-.306				
.015					.016	-.507		
.025			-.170	-.588	-.282	-.441	-.148	-.257
.050			-.217	-.335	-.187	-.295	-.201	-.271
.100			-.261	-.388	-.230	-.279	-.213	-.219
.150			-.274	-.472	-.288	-.360	-.257	-.302
.250	-.232		-.313	-.332	-.356	-.364	-.285	-.332
.400	-.302		-.319	-.227	-.309	-.307	-.299	-.299
.550	-.226	-.059	-.220	-.112	-.213	-.215	-.208	-.225
.700	-.148	-.047	-.126	-.034	-.121	-.080	-.091	-.108
.850	-.080	-.007	-.049	-.014	-.011	-.009	.004	-.016
.950	-.023	.003	.010	.045	.058	.074	.069	.078

TABLE 6 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = -0.02 DEG

Q = 1166 N/SQ.M. (24.35 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.143		.501		1.031	
.010			.574	-.958				
.015					.257	-.481		
.025			.114	-.944	.103	-.717	.091	-.213
.050			.012	-.704	-.023	-.508	-.136	-.181
.100			-.054	-.639	-.058	-.415	-.085	-.216
.150			-.144	-.669	-.058	-.359	-.136	-.332
.250	-.096		-.197	-.532	-.190	-.342	-.197	-.268
.400	-.166		-.174	-.337	-.168	-.295	-.181	-.274
.550	-.082	-.180	-.101	-.099	-.095	-.192	-.109	-.177
.700	-.011	-.121	-.019	-.003	-.027	-.048	-.046	-.071
.850	.070	.033	.076	.088	.091	.053	.069	.035
.950	.158	.160	.150	.177	.143	.134	.134	.123

ALPHA = 4.01 DEG

Q = 1168 N/SQ.M. (24.40 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.046		1.048		.746	
.010			.921	.256				
.015					-.628	.350		
.025			-.749	.117	-.817	.228	-.823	.396
.050			-.483	.119	-.537	.152	-.577	.223
.100			-.385	-.152	-.431	.002	-.403	.115
.150			-.384	-.200	-.413	-.049	-.370	.042
.250	-.204		-.351	-.267	-.376	-.128	-.378	-.076
.400	-.259		-.301	-.193	-.305	-.142	-.297	-.122
.550	-.149	-.238	-.163	-.031	-.181	-.067	-.160	-.084
.700	-.060	-.173	-.060	.058	-.053	.012	-.037	-.020
.850	.042	.003	.052	.114	.061	.086	.065	.058
.950	.135	.114	.143	.175	.145	.153	.137	.146

ALPHA = 7.99 DEG

Q = 1169 N/SQ.M. (24.41 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.864		-.050		-1.667	
.010			.926	1.069				
.015					-2.011	.903		
.025			-1.646	.748	-2.305	.814	-1.974	.816
.050			-1.034	.549	-1.069	.616	-1.017	.607
.100			-.702	.303	-.806	.364	-.873	.418
.150			-.631	.147	-.714	.256	-.683	.248
.250	-.287		-.508	.002	-.575	.075	-.582	.087
.400	-.302		-.377	-.038	-.416	.016	-.413	.027
.550	-.186	-.251	-.208	.068	-.243	.036	-.240	.007
.700	-.070	-.181	-.082	.125	-.099	.087	-.098	.043
.850	.042	-.002	.047	.154	.044	.115	.023	.083
.950	.122	.102	.147	.188	.136	.156	.108	.132



TABLE 6 (B) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = 9.99 DEG      Q = 1172 N/SQ.M. (24.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.251		-1.266		-2.575	
.010			.726	1.066				
.015					-3.071	1.049		
.025			-2.705	.982	-3.036	.922	-2.254	.934
.050			-1.408	.715	-1.527	.763	-1.447	.728
.100			-.867	.466	-1.058	.584	-1.042	.520
.150			-.774	.293	-.895	.371	-.847	.375
.250	-.339		-.603	.102	-.640	.212	-.668	.177
.400	-.344		-.433	.033	-.475	.100	-.462	.069
.550	-.209	-.300	-.245	.107	-.274	.093	-.268	.035
.700	-.087	-.163	-.104	.138	-.113	.105	-.105	.054
.850	.025	-.025	.037	.151	.040	.130	.021	.086
.950	.102	.085	.129	.176	.127	.151	.104	.123

ALPHA = 11.98 DEG      Q = 1167 N/SQ.M. (24.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .297

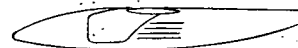
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.720		-2.476		-1.955	
.010			.523	.940				
.015					-4.493	1.048		
.025			-2.439	1.062	-2.972	1.040	-1.451	1.036
.050			-1.683	.868	-1.922	.903	-1.816	.858
.100			-1.055	.680	-1.274	.650	-1.243	.638
.150			-.949	.426	-1.034	.484	-.983	.445
.250	-.369		-.654	.230	-.779	.315	-.744	.275
.400	-.364		-.483	.125	-.542	.168	-.518	.145
.550	-.226	-.274	-.268	.143	-.293	.132	-.291	.092
.700	-.086	-.168	-.103	.176	-.115	.144	-.116	.092
.850	.027	-.015	.042	.164	.035	.137	-.135	.100
.950	.111	.089	.121	.165	.108	.133	-.005	.118

ALPHA = 15.97 DEG      Q = 1166 N/SQ.M. (24.35 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.416		.014		-.822	
.010			.682	1.044				
.015					-.592	1.061		
.025			-.480	1.024	-.523	.966	-.792	.966
.050			-.457	.889	-.591	.834	-.790	.796
.100			-.540	.678	-.538	.639	-.752	.606
.150			-.459	.492	-.499	.474	-.755	.450
.250	-.463		-.480	.238	-.600	.292	-.826	.261
.400	-.558		-.692	.052	-.553	.128	-.797	.098
.550	-.540	-.392	-.557	.051	-.662	.056	-.752	.027
.700	-.497	-.323	-.577	.055	-.569	.039	-.653	-.020
.850	-.442	-.209	-.506	-.034	-.466	-.080	-.492	-.089
.950	-.286	-.242	-.400	-.169	-.383	-.164	-.438	-.163

TABLE 6 (B) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 0 DEGREES



ALPHA = 20.02 DEG

Q = 1169 N/SQ.M. (24.42 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.175		-.262		-.976	
.010			.615	.971				
.015					-.453	1.076		
.025			-.385	1.072	-.449	1.041	-.709	1.023
.050			-.382	.975	-.445	.925	-.696	.903
.100			-.389	.794	-.441	.771	-.677	.708
.150			-.413	.606	-.444	.606	-.664	.557
.250	-.418		-.437	.351	-.463	.387	-.707	.337
.400	-.473		-.473	.142	-.521	.218	-.726	.147
.550	-.489	-.428	-.510	.095	-.551	.099	-.755	.038
.700	-.564	-.375	-.521	.040	-.567	.006	-.763	-.038
.850	-.563	-.305	-.506	-.107	-.547	-.119	-.731	-.156
.950	-.592	-.393	-.472	-.230	-.513	-.271	-.640	-.294

ALPHA = -.01 DEG

Q = 1167 N/SQ.M. (24.37 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.323		.685		1.037	
.010			.704	-.734				
.015					.288	-.579		
.025			.185	-.903	.101	-.517	-.012	-.390
.050			-.086	-.611	.051	-.505	-.028	-.309
.100			.011	-.602	-.039	-.412	-.104	-.205
.150			-.139	-.622	-.086	-.418	-.125	-.301
.250	-.097		-.140	-.546	-.147	-.375	-.182	-.283
.400	-.135		-.152	-.310	-.164	-.298	-.160	-.219
.550	-.069	-.150	-.056	-.107	-.084	-.167	-.087	-.149
.700	.007	-.109	-.003	.020	-.019	-.051	-.015	-.049
.850	.091	.021	.101	.107	.115	.065	.096	.056
.950	.175	.182	.164	.193	.154	.162	.146	.150

TABLE 7 (A)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS



ALPHA = -4.00 DEG      Q = 2838 N/SQ.M. (59.28 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.954		.979		.914	
.010			.555	.334				
.015					-.553	.102		
.025			-.653	-.050	-.728	.141	-.542	.072
.050			-.474	-.094	-.558	.003	-.498	-.031
.100			-.433	-.148	-.497	-.038	-.431	-.106
.150			-.471	-.168	-.520	-.106	-.403	-.160
.250	-.373		-.472	-.136	-.453	-.120	-.433	-.195
.400	-.438		-.482	-.034	-.474	-.064	-.398	-.195
.550	-.384	.105	-.404	.105	-.391	.090	-.310	-.147
.700	-.337	.143	-.326	.218	-.309	.260	-.165	-.084
.850	-.323	.178	-.279	.353	-.221	.507	-.072	.005
.950	-.330	.164	-.237	.471	-.182	.629	.006	.061

ALPHA = 4.00 DEG      Q = 2851 N/SQ.M. (59.55 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.821		.196		-.420	
.010			.524	.969				
.015					-2.045	.772		
.025			-1.508	.566	-1.633	.653	-1.511	.571
.050			-1.083	.424	-1.114	.456	-1.195	.429
.100			-.823	.277	-.886	.318	-.714	.199
.150			-.713	.167	-.845	.229	-.756	.134
.250	-.490		-.677	.102	-.706	.049	-.664	-.015
.400	-.522		-.598	.073	-.622	.078	-.515	-.086
.550	-.440	.187	-.475	.166	-.469	.172	-.369	-.050
.700	-.377	.210	-.381	.298	-.357	.338	-.238	-.019
.850	-.352	.250	-.300	.450	-.257	.551	-.108	-.001
.950	-.363	.220	-.227	.579	-.192	.669	-.016	.034

ALPHA = 8.00 DEG      Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.283		-2.042		-3.321	
.010			.287	.976				
.015					-3.609	.987		
.025			-2.740	.931	-3.274	.930	-2.627	.916
.050			-1.742	.817	-1.917	.774	-1.779	.693
.100			-1.201	.573	-1.366	.579	-1.203	.507
.150			-1.077	.430	-1.170	.450	-1.018	.356
.250	-.605		-.898	.283	-.940	.270	-.865	.170
.400	-.606		-.726	.210	-.767	.202	-.662	.036
.550	-.500	.244	-.552	.260	-.559	.252	-.465	.010
.700	-.417	.266	-.441	.349	-.419	.386	-.290	.017
.850	-.373	.309	-.335	.524	-.290	.585	-.148	.017
.950	-.383	.266	-.243	.646	-.223	.682	-.048	.025

TABLE 7 (A) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS



ALPHA = 10.01 DEG

Q = 2845 N/SQ.M. (59.43 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.085		-.534		-1.362	
.010			.246	.941				
.015					-1.324	.994		
.025			-1.553	.956	-1.283	.915	-1.496	.874
.050			-1.386	.829	-1.411	.770	-1.492	.706
.100			-1.576	.640	-1.444	.594	-1.606	.495
.150			-1.371	.487	-1.313	.450	-1.407	.371
.250	-.776		-1.410	.333	-1.370	.313	-1.371	.193
.400	-.764		-.973	.255	-1.091	.241	-.987	.065
.550	-.549	.263	-.667	.286	-.682	.288	-.600	.022
.700	-.486	.291	-.601	.374	-.648	.403	-.387	.011
.850	-.357	.328	-.401	.546	-.460	.601	-.263	-.022
.950	-.311	.312	-.348	.662	-.405	.689	-.166	-.050

ALPHA = 12.46 DEG

Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.232		-.263		-1.111	
.010			.233	.968				
.015					-.734	.986		
.025			-.708	.972	-.817	.915	-1.086	.878
.050			-.754	.872	-.799	.781	-1.073	.719
.100			-.783	.665	-.793	.621	-1.153	.521
.150			-.736	.542	-.835	.496	-1.107	.378
.250	-.670		-.811	.365	-.770	.353	-1.165	.217
.400	-.825		-.807	.262	-.908	.268	-1.187	.078
.550	-.829	.277	-.393	.294	-.941	.306	-1.069	.019
.700	-.809	.307	-.894	.388	-.867	.407	-.819	-.012
.850	-.673	.333	-.719	.568	-.748	.599	-.659	-.061
.950	-.543	.324	-.668	.671	-.643	.687	-.441	-.131

ALPHA = 16.00 DEG

Q = 2842 N/SQ.M. (59.36 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.175		-.424		-.990	
.010			.132	.843				
.015					-.714	.992		
.025			-.712	1.002	-.723	.972	-.802	.900
.050			-.707	.918	-.699	.857	-.822	.771
.100			-.734	.763	-.719	.709	-.811	.592
.150			-.726	.651	-.712	.587	-.790	.444
.250	-.725		-.743	.449	-.700	.432	-.793	.278
.400	-.792		-.759	.318	-.743	.317	-.890	.116
.550	-.768	.289	-.788	.329	-.729	.334	-.979	.021
.700	-.777	.318	-.784	.409	-.734	.406	-.971	-.050
.850	-.754	.355	-.752	.581	-.765	.605	-.878	-.148
.950	-.690	.359	-.755	.666	-.796	.694	-.777	-.322

TABLE 7 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS



ALPHA = 19.99 DEG

Q = 2838 N/SQ.M. (59.28 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.435		-.660		-.942	
.010			.024	.699				
.015					-.685	.953		
.025			-.707	.991	-.692	1.000	-.690	.944
.050			-.680	.982	-.675	.933	-.695	.856
.100			-.705	.865	-.692	.800	-.691	.679
.150			-.690	.753	-.681	.673	-.690	.536
.250	-.690		-.717	.550	-.682	.552	-.687	.361
.400	-.746		-.757	.384	-.710	.390	-.751	.189
.550	-.729	.313	-.745	.330	-.729	.396	-.737	.071
.700	-.738	.345	-.740	.439	-.758	.469	-.762	-.021
.850	-.739	.386	-.767	.596	-.788	.630	-.747	-.174
.950	-.708	.396	-.769	.677	-.787	.710	-.731	-.365

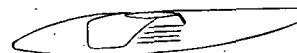
ALPHA = .01 DEG

Q = 2840 N/SQ.M. (59.32 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.942		.976		.907	
.010			.297	.221				
.015					-.579	.266		
.025			-.627	-.009	-.677	.018	-.555	.005
.050			-.496	-.088	-.530	.026	-.466	-.039
.100			-.439	-.174	-.468	-.008	-.378	-.100
.150			-.473	-.174	-.440	-.126	-.409	-.100
.250	-.378		-.467	-.126	-.489	-.125	-.431	-.204
.400	-.439		-.472	-.035	-.459	-.066	-.398	-.204
.550	-.374	.122	-.411	.100	-.379	.086	-.313	-.146
.700	-.335	.151	-.318	.207	-.301	.272	-.165	-.085
.850	-.319	.179	-.282	.365	-.219	.516	-.075	.004
.950	-.322	.175	-.238	.467	-.184	.624	.007	.062

TABLE 7 (B)  
PRESSURE PROFILE ON WING



FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS

ALPHA = .00 DEG Q = 1169 N/SQ.M. (24.41 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.978		.896		.727	
.010			.013	.539				
.015					-.957	.404		
.025			-.851	.225	-.929	.351	-.666	.285
.050			-.553	.175	-.628	.217	-.541	.134
.100			-.503	.110	-.635	.146	-.552	.067
.150			-.602	-.041	-.630	.079	-.437	-.034
.250	-.422		-.576	.012	-.611	.057	-.472	-.094
.400	-.539		-.587	.278	-.602	.180	-.410	-.063
.550	-.498	.966	-.527	.548	-.504	.362	-.314	-.048
.700	-.495	1.498	-.511	.606	-.476	.562	-.182	.001
.850	-.561	1.404	-.579	.431	-.516	.560	-.080	.048
.950	-.678	2.811	-.645	.549	-.706	.446	.013	.097

ALPHA = 4.01 DEG Q = 1163 N/SQ.M. (24.29 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .296

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.414		-.342		-1.284	
.010			.271	1.016				
.015					-2.481	.949		
.025			-2.125	.758	-2.067	.789	-2.328	.713
.050			-1.335	.568	-1.395	.651	-1.152	.506
.100			-.903	.462	-1.001	.460	-.900	.346
.150			-.917	.313	-.956	.369	-.841	.190
.250	-.550		-.797	.219	-.864	.258	-.712	.081
.400	-.647		-.734	.354	-.767	.252	-.575	.002
.550	-.600	.965	-.647	.587	-.639	.397	-.420	.013
.700	-.567	1.394	-.600	.686	-.569	.566	-.281	.017
.850	-.591	1.401	-.640	.478	-.604	.608	-.149	.023
.950	-.684	2.654	-.700	.618	-.756	.497	-.038	.029

ALPHA = 7.99 DEG Q = 1171 N/SQ.M. (24.45 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.097		-3.574		-4.292	
.010			-.107	.813				
.015					-4.877	.965		
.025			-3.028	.991	-3.821	.988	-2.686	.958
.050			-2.058	.876	-2.222	.879	-1.910	.813
.100			-1.424	.677	-1.520	.715	-1.416	.602
.150			-1.232	.580	-1.355	.571	-1.126	.404
.250	-.707		-1.009	.441	-1.084	.431	-.945	.237
.400	-.763		-.905	.464	-.908	.370	-.734	.131
.550	-.665	.910	-.736	.626	-.757	.437	-.528	.070
.700	-.624	1.292	-.674	.743	-.658	.574	-.350	.065
.850	-.644	1.603	-.703	.632	-.659	.636	-.190	.035
.950	-.734	2.492	-.741	.669	-.813	.557	-.079	.009

TABLE 7 (B) - CONTINUED  
PRESSURE PROFILE ON WING



FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS

ALPHA = 10.01 DEG Q = 1173 N/SQ.M. (24.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.643		-1.217		-2.215	
.010			-.233	.774				
.015					-1.752	.989		
.025			-2.161	1.010	-1.622	.974	-1.879	.936
.050			-1.900	.938	-1.643	.879	-1.988	.799
.100			-2.082	.760	-1.702	.720	-1.936	.602
.150			-1.921	.640	-1.677	.598	-1.988	.435
.250	-.860		-1.713	.488	-1.724	.475	-1.836	.286
.400	-.905		-1.272	.511	-1.356	.428	-1.349	.153
.550	-.779	.943	-.891	.634	-1.099	.464	-.738	.086
.700	-.712	1.272	-.768	.753	-.818	.591	-.479	.063
.850	-.692	1.689	-.728	.711	-.715	.667	-.298	.009
.950	-.731	2.472	-.804	.740	-.753	.536	-.180	-.037

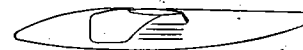
ALPHA = 12.00 DEG Q = 1162 N/SQ.M. (24.26 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.608		-1.130		-2.269	
.010			-.201	.766				
.015					-1.356	.960		
.025			-1.508	.694	-1.389	.980	-1.871	.943
.050			-1.366	.941	-1.357	.899	-1.808	.827
.100			-1.470	.778	-1.341	.740	-1.813	.642
.150			-1.341	.676	-1.470	.633	-1.869	.497
.250	-1.158		-1.292	.543	-1.517	.511	-1.881	.324
.400	-1.264		-1.455	.528	-1.497	.448	-1.801	.186
.550	-.953	.900	-1.359	.660	-1.451	.485	-1.320	.095
.700	-.780	1.214	-1.038	.757	-1.185	.597	-.844	.066
.850	-1.004	1.619	-.937	.702	-1.140	.673	-.372	.006
.950	-.898	2.520	-.906	.772	-.893	.603	-.208	-.032

ALPHA = 16.01 DEG Q = 1167 N/SQ.M. (24.37 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.766		-1.198		-2.036	
.010			-.305	.596				
.015					-1.214	.896		
.025			-1.096	.973	-1.186	.984	-1.659	.941
.050			-1.130	.977	-1.206	.960	-1.700	.864
.100			-1.104	.868	-1.176	.826	-1.609	.696
.150			-1.146	.779	-1.236	.744	-1.615	.563
.250	-1.092		-1.192	.643	-1.306	.630	-1.690	.391
.400	-1.220		-1.240	.607	-1.355	.523	-1.722	.232
.550	-1.290	.949	-1.291	.689	-1.391	.522	-1.711	.128
.700	-1.308	1.313	-1.287	.796	-1.372	.615	-1.480	.061
.850	-1.251	1.531	-1.220	.747	-1.227	.677	-1.090	-.030
.950	-1.094	2.551	-1.170	.800	-1.259	.565	-.666	-.194

TABLE 7 (B) - CONCLUDED  
PRESSURE PROFILE ON WING



FORWARD NOZZLES DEFLECTED 0 DEGREES WITH FLAPS

ALPHA = 20.00 DEG Q = 1172 N/SQ.M. (24.48 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.199		-1.357		-1.671	
.010			-.469	.295				
.015					-1.152	.792		
.025			-1.179	.876	-1.161	.947	-1.515	.923
.050			-1.226	.978	-1.159	.978	-1.529	.911
.100			-1.207	.940	-1.159	.896	-1.501	.759
.150			-1.207	.860	-1.185	.811	-1.519	.630
.250	-1.233		-1.241	.713	-1.246	.685	-1.519	.464
.400	-1.283		-1.299	.664	-1.336	.565	-1.591	.281
.550	-1.304	.967	-1.314	.709	-1.322	.566	-1.622	.142
.700	-1.340	1.285	-1.329	.801	-1.316	.614	-1.625	.014
.850	-1.367	1.515	-1.317	.743	-1.310	.664	-1.396	-.164
.950	-1.255	2.416	-1.360	.795	-1.389	.567	-1.174	-.432

ALPHA = .00 DEG Q = 1168 N/SQ.M. (24.39 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .298

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.972		.864		.795	
.010			.412	.486				
.015					-1.121	.280		
.025			-.720	.231	-1.729	.301	-.762	.214
.050			-.824	.211	-.745	.150	-.557	.207
.100			-.513	.049	-.612	.175	-.516	-.025
.150			-.621	-.013	-.580	.073	-.462	-.056
.250	-.441		-.623	-.024	-.644	.062	-.503	-.119
.400	-.537		-.617	.247	-.605	.150	-.436	-.110
.550	-.527	.924	-.536	.527	-.528	.325	-.352	-.075
.700	-.532	1.393	-.524	.578	-.506	.522	-.219	-.011
.850	-.578	1.286	-.599	.357	-.558	.510	-.103	.028
.950	-.697	2.799	-.698	.514	-.723	.433	-.014	.063



TABLE 8 (A)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 0.00 DEG      Q = 2853 N/SQ.M. (59.60 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.594		.852		.959	
.010			.281	-.316				
.015					-.195	-.236		
.025			-.278	-.473	-.316	-.448	-.230	-.270
.050			-.354	-.336	-.381	-.285	-.262	-.278
.100			-.340	-.391	-.331	-.313	-.335	-.246
.150			-.360	-.453	-.309	-.366	-.266	-.309
.250	-.287		-.381	-.397	-.390	-.365	-.338	-.355
.400	-.352		-.374	-.355	-.356	-.369	-.323	-.314
.550	-.281	-.278	-.282	-.297	-.267	-.307	-.232	-.270
.700	-.220	-.311	-.188	-.239	-.176	-.197	-.130	-.151
.850	-.183	-.292	-.133	-.227	-.059	-.098	-.030	-.056
.950	-.196	-.262	-.086	-.123	.005	-.005	.033	.041

ALPHA = 4.04 DEG      Q = 2845 N/SQ.M. (59.41 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.989		.815		.385	
.010			.328	.684				
.015					-1.135	.531		
.025			-1.093	.486	-1.107	.343	-1.128	.466
.050			-.797	.231	-.850	.199	-.830	.190
.100			-.593	-.008	-.663	.059	-.600	.066
.150			-.591	-.162	-.624	-.078	-.571	-.060
.250	-.384		-.537	-.264	-.530	-.199	-.511	-.166
.400	-.406		-.466	-.292	-.470	-.243	-.426	-.222
.550	-.311	-.272	-.320	-.261	-.319	-.208	-.295	-.180
.700	-.227	-.309	-.212	-.219	-.193	-.160	-.157	-.133
.850	-.161	-.283	-.117	-.153	-.064	-.067	-.051	-.059
.950	-.153	-.221	-.043	-.049	.021	.009	.033	.041

ALPHA = 7.98 DEG      Q = 2846 N/SQ.M. (59.45 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.499		-.700		-1.493	
.010			.349					
.015					-2.574	.901		
.025			-2.220	.718	-2.395	.778	-2.370	.730
.050			-1.240	.515	-1.536	.548	-1.352	.572
.100			-.921	.313	-1.037	.347	-1.012	.319
.150			-.825	.132	-.916	.188	-.854	.173
.250	-.452		-.678	-.071	-.767	.029	-.726	.020
.400	-.440		-.539	-.218	-.574	-.119	-.534	-.081
.550	-.319	-.297	-.361	-.219	-.377	-.124	-.362	-.092
.700	-.207	-.329	-.219	-.188	-.217	-.077	-.204	-.061
.850	-.108	-.251	-.094	-.116	-.074	-.050	-.081	-.028
.950	-.067	-.142	-.005	-.014	.022	.015	.005	.018

TABLE 8 (A) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 9.98 DEG

Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.197		-2.039		-2.959	
.010			.300	.976				
.015					-3.677	.979		
.025			-2.556	.876	-2.959	.897	-2.397	.876
.050			-1.677	.668	-1.795	.704	-1.687	.685
.100			-1.086	.430	-1.292	.503	-1.228	.438
.150			-.963	.276	-1.118	.305	-.973	.284
.250	-.482		-.749	.012	-.809	.094	-.820	.100
.400	-.456		-.578	-.169	-.613	-.041	-.587	-.011
.550	-.317	-.308	-.368	-.194	-.405	-.060	-.389	-.062
.700	-.189	-.336	-.213	-.153	-.228	-.059	-.217	-.037
.850	-.090	-.216	-.081	-.088	-.079	-.016	-.088	-.011
.950	-.023	-.097	.012	.004	.010	.026	.000	.028

ALPHA = 12.01 DEG

Q = 2846 N/SQ.M. (59.43 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.126		-3.106		-4.569	
.010			.189	.834				
.015					-3.944	.967		
.025			-3.063	.976	-3.450	.965	-3.022	.961
.050			-1.920	.796	-2.186	.853	-2.195	.801
.100			-1.252	.570	-1.484	.582	-1.411	.553
.150			-1.061	.407	-1.254	.409	-1.113	.370
.250	-.519		-.793	.095	-.912	.187	-.900	.233
.400	-.474		-.588	-.137	-.659	.017	-.646	.034
.550	-.328	-.322	-.372	-.171	-.418	-.021	-.409	-.027
.700	-.192	-.333	-.210	-.130	-.230	-.028	-.229	-.017
.850	-.082	-.178	-.073	-.061	-.080	-.015	-.095	-.014
.950	-.017	-.045	.008	.004	.000	.016	-.016	.005

ALPHA = 13.98 DEG

Q = 2846 N/SQ.M. (59.43 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.553		.167		-.672	
.010			.219	1.000				
.015					-.507	.929		
.025			-.539	.874	-.543	.810	-.849	.819
.050			-.629	.689	-.526	.644	-.807	.638
.100			-.653	.463	-.596	.462	-.852	.436
.150			-.548	.289	-.526	.313	-.778	.282
.250	-.571		-.619	.016	-.649	.114	-.845	.095
.400	-.643		-.708	-.190	-.723	-.072	-.862	-.047
.550	-.590	-.369	-.662	-.239	-.726	-.136	-.791	-.119
.700	-.542	-.395	-.663	-.196	-.628	-.149	-.750	-.138
.850	-.472	-.228	-.606	-.197	-.540	-.210	-.624	-.178
.950	-.307	-.117	-.434	-.247	-.443	-.282	-.438	-.221

TABLE 8 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.02 DEG Q = 2842 N/SQ.M. (59.35 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.374		.077		-.711	
.010			.222	.986				
.015					-.476	.951		
.025			-.503	.910	-.501	.843	-.749	.851
.050			-.516	.741	-.440	.683	-.800	.691
.100			-.498	.528	-.475	.490	-.758	.460
.150			-.495	.331	-.493	.331	-.750	.303
.250	-.499		-.554	.032	-.483	.118	-.776	.111
.400	-.595		-.566	-.209	-.558	-.060	-.785	-.041
.550	-.633	-.408	-.698	-.255	-.641	-.135	-.843	-.117
.700	-.657	-.398	-.681	-.238	-.634	-.174	-.790	-.163
.850	-.629	-.241	-.648	-.247	-.582	-.244	-.694	-.237
.950	-.447	-.198	-.580	-.299	-.501	-.326	-.589	-.353

ALPHA = 17.99 DEG Q = 2843 N/SQ.M. (59.37 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.238		-.077		-.698	
.010			.222	.942				
.015					-.447	.973		
.025			-.510	.960	-.463	.900	-.673	.878
.050			-.505	.816	-.437	.739	-.673	.715
.100			-.504	.601	-.463	.579	-.645	.494
.150			-.499	.398	-.455	.395	-.628	.350
.250	-.525		-.538	.081	-.476	.166	-.651	.154
.400	-.585		-.621	-.192	-.549	-.024	-.702	-.016
.550	-.627	-.444	-.648	-.237	-.586	-.122	-.735	-.118
.700	-.665	-.417	-.672	-.222	-.600	-.164	-.709	-.182
.850	-.657	-.251	-.638	-.240	-.561	-.245	-.721	-.287
.950	-.598	-.248	-.597	-.323	-.508	-.338	-.691	-.398

ALPHA = 20.00 DEG Q = 2846 N/SQ.M. (59.45 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.094		-.224		-.739	
.010			.210	.893				
.015					-.433	.990		
.025			-.494	.981	-.441	.940	-.607	.900
.050			-.503	.881	-.457	.819	-.598	.758
.100			-.520	.646	-.441	.619	-.618	.553
.150			-.496	.452	-.456	.445	-.633	.400
.250	-.527		-.534	-.136	-.471	.224	-.621	.215
.400	-.580		-.600	-.175	-.539	.021	-.651	.021
.550	-.610	-.451	-.613	-.234	-.575	-.089	-.718	-.107
.700	-.687	-.446	-.641	-.219	-.592	-.146	-.719	-.187
.850	-.684	-.255	-.638	-.251	-.564	-.240	-.715	-.307
.950	-.655	-.289	-.601	-.332	-.499	-.346	-.716	-.436

TABLE 8 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = -0.01 DEG Q = 2034 N/SQ.M. (42.48 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .296

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.332		.448		.926	
.010			.445	-1.333				
.015					.094	-1.113		
.025			-.084	-.914	-.094	-1.032	-.081	-.597
.050			-.096	-1.126	-.057	-.755	-.163	-.456
.100			-.194	-1.085	-.190	-.782	-.223	-.433
.150			-.303	-1.178	-.273	-.820	-.266	-.479
.250	-.266		-.333	-1.332	-.338	-.928	-.329	-.497
.400	-.346		-.381	-1.484	-.352	-.915	-.331	-.458
.550	-.283	-1.948	-.286	-1.451	-.287	-.795	-.244	-.366
.700	-.224	-1.945	-.237	-1.164	-.227	-.588	-.151	-.247
.850	-.227	-1.688	-.205	-.749	-.119	-.391	-.061	-.132
.950	-.338	-1.072	-.210	-.412	-.100	-.194	-.010	-.014

ALPHA = 4.00 DEG Q = 2028 N/SQ.M. (42.36 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.842		.968		.608	
.010			.537	.162				
.015					-.810	.079		
.025			-.777	-.419	-.877	-.127	-1.014	.195
.050			-.626	-.391	-.673	-.207	-.710	-.034
.100			-.500	-.637	-.613	-.379	-.568	-.077
.150			-.548	-.869	-.568	-.515	-.540	-.174
.250	-.373		-.505	-1.156	-.536	-.697	-.537	-.301
.400	-.414		-.466	-1.430	-.480	-.772	-.440	-.338
.550	-.322	-1.958	-.350	-1.399	-.360	-.722	-.303	-.290
.700	-.252	-1.985	-.278	-1.121	-.251	-.576	-.184	-.202
.850	-.233	-1.687	-.234	-.745	-.162	-.361	-.084	-.117
.950	-.300	-.798	-.222	-.384	-.116	-.192	-.013	-.013

ALPHA = 8.04 DEG Q = 2039 N/SQ.M. (42.58 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.876		.380		-1.026	
.010			.725	.888				
.015					-2.267	.586		
.025			-1.600	.297	-2.065	.439	-2.042	.671
.050			-1.251	.097	-1.264	.231	-1.274	.460
.100			-.855	-.199	-.950	-.032	-.996	.223
.150			-.818	-.581	-.875	-.238	-.876	.092
.250	-.465		-.678	-.951	-.722	-.490	-.766	-.098
.400	-.481		-.571	-1.376	-.627	-.648	-.552	-.192
.550	-.369	-2.035	-.424	-1.369	-.432	-.630	-.382	-.196
.700	-.275	-2.023	-.307	-1.086	-.301	-.537	-.233	-.140
.850	-.220	-1.390	-.235	-.720	-.182	-.354	-.116	-.093
.950	-.253	-.635	-.227	-.383	-.114	-.200	-.026	-.021

TABLE 8 (B) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 45 DEGREES.



ALPHA = 9.99 DEG Q = 2030 N/SQ.M. (42.40 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.484		-.969		-2.542	
.010			.802	.980				
.015					-2.821	.875		
.025			-2.309	.554	-2.752	.658	-2.515	.810
.050			-1.471	.297	-1.565	.408	-1.716	.605
.100			-1.011	-.094	-1.214	.127	-1.192	.388
.150			-.960	-.407	-1.042	-.098	-1.008	.173
.250	-.514		-.772	-.887	-.843	-.387	-.833	.023
.400	-.525		-.634	-1.356	-.669	-.569	-.622	-.125
.550	-.394	-2.069	-.455	-1.352	-.475	-.589	-.418	-.152
.700	-.294	-2.096	-.331	-1.077	-.323	-.507	-.255	-.122
.850	-.230	-1.161	-.259	-.705	-.189	-.340	-.129	-.083
.950	-.245	-.530	-.227	-.386	-.121	-.195	-.032	-.021

ALPHA = 12.01 DEG Q = 2036 N/SQ.M. (42.53 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.312		-1.922		-4.332	
.010			.758	1.001				
.015					-4.211	.984		
.025			-3.024	.767	-3.336	.860	-3.029	.944
.050			-1.880	.481	-2.084	.592	-2.077	.747
.100			-1.287	.093	-1.494	.276	-1.443	.480
.150			-1.046	-.235	-1.223	.046	-1.135	.298
.250	-.566		-.854	-.746	-.933	-.245	-.944	.109
.400	-.559		-.676	-1.332	-.734	-.484	-.682	-.049
.550	-.413	-2.115	-.481	-1.327	-.505	-.540	-.455	-.118
.700	-.314	-2.071	-.346	-1.061	-.332	-.483	-.281	-.091
.850	-.235	-.939	-.257	-.699	-.196	-.341	-.142	-.070
.950	-.230	-.468	-.229	-.387	-.120	-.197	-.055	-.030

ALPHA = 14.01 DEG Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.542		-2.581		-1.454	
.010			.670	.928				
.015					-4.062	1.001		
.025			-3.016	.885	-3.098	.900	-1.109	.893
.050			-1.979	.610	-1.941	.667	-1.416	.703
.100			-1.333	.189	-1.514	.361	-1.302	.463
.150			-1.146	-.145	-1.296	.110	-1.406	.294
.250	-.593		-.879	-.721	-.992	-.212	-1.233	.102
.400	-.568		-.672	-1.319	-.743	-.489	-.928	-.060
.550	-.421	-2.173	-.519	-1.374	-.527	-.553	-.643	-.118
.700	-.314	-2.168	-.360	-1.097	-.380	-.497	-.433	-.122
.850	-.233	-.896	-.258	-.730	-.318	-.401	-.307	-.126
.950	-.222	-.407	-.225	-.410	-.232	-.317	-.360	-.139

TABLE 8 (B) - CONCLUDED  
PRESSURE PROFILE ON WING



FORWARD NOZZLES DEFLECTED 45 DEGREES

ALPHA = 15.99 DEG      Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.135		-.383		-1.063	
.010			.684	.994				
.015					-1.385	.963		
.025			-1.253	.831	-1.036	.836	-1.049	.877
.050			-1.531	.576	-1.021	.613	-.964	.710
.100			-1.287	.192	-1.094	.326	-1.021	.488
.150			-1.391	-.158	-1.139	.091	-1.014	.303
.250	-.694		-1.103	-.739	-1.029	-.219	-1.090	.110
.400	-.721		-.867	-1.338	-.868	-.502	-1.026	-.056
.550	-.523	-2.256	-.669	-1.388	-.805	-.570	-.942	-.134
.700	-.394	-2.123	-.640	-1.158	-.673	-.554	-.748	-.154
.850	-.379	-1.107	-.492	-.824	-.540	-.487	-.641	-.200
.950	-.268	-.493	-.370	-.571	-.458	-.403	-.444	-.247

ALPHA = 18.04 DEG      Q = 2036 N/SQ.M. (42.53 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.389		-.082		-1.216	
.010			.688	1.001				
.015					-.763	.965		
.025			-.795	.855	-.700	.834	-.946	.917
.050			-.605	.603	-.694	.616	-.912	.748
.100			-.752	.206	-.726	.343	-.929	.522
.150			-.717	-.150	-.785	.096	-.938	.359
.250	-.684		-.852	-.743	-.734	-.200	-.931	.154
.400	-.734		-.948	-1.392	-.783	-.503	-1.010	-.042
.550	-.761	-2.309	-.838	-1.457	-.831	-.613	-.962	-.145
.700	-.725	-2.305	-.750	-1.231	-.762	-.616	-.902	-.188
.850	-.540	-1.405	-.673	-.958	-.651	-.535	-.763	-.247
.950	-.401	-.506	-.572	-.602	-.539	-.524	-.644	-.356

ALPHA = 20.01 DEG      Q = 2036 N/SQ.M. (42.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .297

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.317		-.141		-1.199	
.010			.683	.983				
.015					-.630	.977		
.025			-.592	.864	-.599	.856	-.876	.926
.050			-.630	.640	-.570	.665	-.871	.791
.100			-.593	.255	-.599	.373	-.836	.562
.150			-.651	-.116	-.648	.136	-.883	.405
.250	-.609		-.614	-.728	-.604	-.189	-.841	.186
.400	-.667		-.744	-1.389	-.729	-.487	-.914	-.019
.550	-.758	-2.286	-.736	-1.521	-.765	-.613	-.994	-.122
.700	-.791	-2.462	-.773	-1.357	-.769	-.640	-.938	-.193
.850	-.770	-1.486	-.717	-1.011	-.703	-.622	-.868	-.294
.950	-.679	-.758	-.614	-.748	-.628	-.594	-.785	-.417

TABLE 8 (c)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = -.01 DEG Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.) EFFECT. VELCC. RATIO = .198

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.729		-.087		.927	
.010			.266	-2.009				
.015					.468	-1.807		
.025			.191	-1.874	.264	-1.550	-.025	-.667
.050			-.035	-1.487	.041	-1.123	-.056	-.582
.100			-.113	-1.505	-.099	-1.006	-.085	-.501
.150			-.218	-1.667	-.227	-1.004	-.254	-.534
.250	-.221		-.275	-1.809	-.251	-1.133	-.289	-.570
.400	-.285		-.301	-2.140	-.299	-1.134	-.288	-.532
.550	-.228	-3.065	-.259	-1.883	-.242	-.958	-.219	-.398
.700	-.182	-2.615	-.209	-1.386	-.200	-.727	-.171	-.285
.850	-.143	-.855	-.197	-.810	-.143	-.470	-.062	-.149
.950	-.172	-.377	-.208	-.445	-.105	-.251	-.012	-.027

ALPHA = 4.03 DEG Q = 906 N/SQ.M. (18.92 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.699		.988		.764	
.010			.294	-.306				
.015					-.375	-.316		
.025			-.468	-.767	-.579	-.455	-.671	.106
.050			-.506	-.711	-.565	-.508	-.642	-.028
.100			-.443	-.979	-.462	-.563	-.488	-.155
.150			-.475	-1.290	-.495	-.762	-.483	-.261
.250	-.315		-.438	-1.590	-.447	-.879	-.457	-.347
.400	-.390		-.426	-2.022	-.458	-.992	-.401	-.390
.550	-.298	-3.074	-.341	-1.857	-.344	-.888	-.302	-.335
.700	-.216	-2.588	-.244	-1.349	-.260	-.725	-.176	-.248
.850	-.171	-.699	-.217	-.777	-.155	-.448	-.086	-.138
.950	-.177	-.288	-.229	-.442	-.139	-.245	-.022	-.027

ALPHA = 8.03 DEG Q = 908 N/SQ.M. (18.97 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.986		.712		-.828	
.010			.355	.674				
.015					-1.633	.554		
.025			-1.571	.069	-1.626	.154	-1.708	.651
.050			-1.071	-.136	-1.192	.053	-1.279	.337
.100			-.762	-.554	-.835	-.192	-.927	.190
.150			-.740	-.892	-.776	-.431	-.800	.016
.250	-.436		-.643	-1.367	-.683	-.681	-.689	-.166
.400	-.456		-.544	-1.925	-.581	-.872	-.539	-.243
.550	-.354	-3.088	-.410	-1.790	-.433	-.824	-.377	-.258
.700	-.258	-2.332	-.301	-1.315	-.307	-.694	-.230	-.207
.850	-.200	-.402	-.264	-.771	-.210	-.460	-.122	-.132
.950	-.174	-.217	-.242	-.433	-.156	-.270	-.040	-.055

TABLE 8 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 9.98 DEG

Q = 909 N/SQ.M. (18.99 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.823		-.057		-1.948	
.010			.393	.849				
.015					-2.270	.750		
.025			-1.960	.341	-2.137	.487	-2.813	.747
.050			-1.334	.116	-1.494	.196	-1.477	.532
.100			-.922	-.348	-1.064	-.016	-1.100	.281
.150			-.896	-.691	-.977	-.298	-1.016	.113
.250	-.485		-.738	-1.275	-.795	-.546	-.806	-.077
.400	-.511		-.599	-1.850	-.646	-.797	-.585	-.204
.550	-.379	-3.061	-.448	-1.744	-.475	-.778	-.422	-.197
.700	-.294	-2.363	-.334	-1.288	-.332	-.673	-.262	-.180
.850	-.217	-.331	-.270	-.763	-.220	-.469	-.143	-.125
.950	-.192	-.185	-.259	-.452	-.165	-.274	-.066	-.059

ALPHA = 12.03 DEG

Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.313		-.766		-4.272	
.010			.381	.992				
.015					-3.541	.936		
.025			-2.480	.661	-3.124	.659	-2.698	.902
.050			-1.564	.284	-1.765	.481	-1.844	.692
.100			-1.136	-.135	-1.349	.185	-1.351	.417
.150			-1.018	-.534	-1.167	-.115	-1.121	.213
.250	-.539		-.830	-1.157	-.883	-.474	-.890	.011
.400	-.535		-.653	-1.813	-.724	-.718	-.671	-.125
.550	-.413	-3.027	-.484	-1.714	-.514	-.724	-.457	-.170
.700	-.305	-2.223	-.356	-1.280	-.355	-.653	-.281	-.158
.850	-.230	-.304	-.286	-.761	-.238	-.477	-.154	-.113
.950	-.185	-.214	-.271	-.451	-.174	-.282	-.070	-.065

ALPHA = 14.02 DEG

Q = 913 N/SQ.M. (19.07 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .198

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.218		-2.459		-5.761	
.010			.357	1.000				
.015					-4.239	1.000		
.025			-3.431	.800	-3.512	.855	-3.164	.993
.050			-1.887	.472	-2.056	.586	-2.202	.805
.100			-1.277	.058	-1.550	.245	-1.555	.529
.150			-1.181	-.366	-1.276	-.044	-1.264	.365
.250	-.584		-.886	-1.051	-1.012	-.401	-1.003	.113
.400	-.570		-.690	-1.742	-.779	-.665	-.707	-.056
.550	-.427	-3.031	-.496	-1.689	-.539	-.714	-.483	-.125
.700	-.313	-2.009	-.367	-1.263	-.370	-.645	-.305	-.121
.850	-.232	-.210	-.292	-.747	-.242	-.488	-.175	-.108
.950	-.201	-.201	-.258	-.447	-.181	-.297	-.089	-.076



TABLE 8 (C) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.01 DEG      Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.012		-1.409		-1.222	
.010			.283	.975				
.015					-3.772	1.0		
.025			-2.073	.907	-2.539	.900	-1.055	.925
.050			-2.023	.613	-1.874	.632	-1.166	.743
.100			-1.402	.138	-1.575	.306	-1.055	.505
.150			-1.210	-.317	-1.279	.015	-1.360	.320
.250	-.591		-.903	-1.003	-1.069	-.345	-1.265	.107
.400	-.594		-.711	-1.793	-.861	-.657	-1.069	-.085
.550	-.429	-3.063	-.511	-1.720	-.701	-.749	-.875	-.141
.700	-.329	-2.010	-.500	-1.331	-.542	-.676	-.458	-.159
.850	-.249	-.252	-.416	-.806	-.401	-.546	-.605	-.161
.950	-.210	-.180	-.312	-.475	-.304	-.410	-.483	-.224

ALPHA = 18.00 DEG      Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.284		-.434		-1.138	
.010			.298	1.0				
.015					-1.190	.998		
.025			-1.311	.846	-1.170	.832	-.947	.940
.050			-1.327	.577	-.907	.600	-.968	.766
.100			-1.377	.106	-1.086	.281	-.917	.515
.150			-1.401	-.328	-1.162	-.000	-.921	.357
.250	-.772		-1.034	-1.046	-1.068	-.339	-1.047	.123
.400	-.672		-.954	-1.797	-.986	-.678	-1.088	-.074
.550	-.535	-3.166	-.817	-1.810	-.847	-.764	-1.019	-.165
.700	-.432	-2.193	-.634	-1.406	-.732	-.728	-.901	-.188
.850	-.363	-.315	-.513	-.882	-.566	-.627	-.790	-.266
.950	-.260	-.217	-.427	-.557	-.481	-.500	-.641	-.344

ALPHA = 19.39 DEG      Q = 910 N/SQ.M. (19.01 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.273		-.151		-1.148	
.010			.304	1.0				
.015					-.847	.981		
.025			-1.010	.835	-.888	.841	-.923	.944
.050			-.920	.572	-.781	.612	-.902	.787
.100			-1.023	.086	-.828	.320	-.951	.545
.150			-.961	-.326	-.954	.010	-.918	.368
.250	-.814		-1.015	-1.032	-.882	-.332	-1.008	.135
.400	-.841		-.950	-1.831	-.876	-.688	-.989	-.066
.550	-.735	-3.258	-.908	-1.836	-.866	-.786	-1.061	-.172
.700	-.665	-2.176	-.811	-1.470	-.794	-.757	-.978	-.215
.850	-.477	-.309	-.628	-.948	-.668	-.683	-.853	-.274
.950	-.323	-.252	-.521	-.628	-.503	-.542	-.797	-.415

TABLE 8 (D)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = .02 DEG Q = 225 N/SQ.M. ( 4.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-4.059		-2.104		.609	
.010			-1.908	-4.620				
.015					1.0	-3.134		
.025			.777	-3.316	.819	-2.714	.546	-.856
.050			.525	-2.616	.546	-1.830	.405	-.800
.100			.286	-2.468	.342	-1.564	.265	-.562
.150			.167	-2.735	.216	-1.522	.125	-.597
.250	.034		.034	-3.075	.090	-1.488	.027	-.575
.400	-.004		-.024	-3.530	-.017	-1.383	-.031	-.469
.550	.034	-2.491	.003	-2.232	-.004	-1.077	.013	-.344
.700	.057	-.520	.027	-1.186	.017	-.741	.071	-.218
.850	.091	-.092	.006	-.534	.040	-.391	.115	-.038
.950	.078	-.007	-.045	-.276	-.007	-.157	.135	.084

ALPHA = 4.03 DEG Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.630		.239		1.103	
.010			-1.734	-2.230				
.015					.511	-1.623		
.025			.288	-2.167	.329	-1.644	-.159	-.228
.050			.037	-1.916	.162	-1.149	-.131	-.221
.100			.051	-2.083	.085	-1.135	-.082	-.270
.150			-.054	-2.369	-.082	-1.198	-.145	-.361
.250	-.054		-.082	-2.985	-.032	-1.288	-.166	-.345
.400	-.078		-.112	-3.498	-.119	-1.271	-.139	-.352
.550	-.038	-2.248	-.041	-2.160	-.078	-1.014	-.044	-.251
.700	.027	-.298	-.014	-1.156	-.031	-.720	.003	-.166
.850	.081	-.034	-.014	-.501	.020	-.372	.081	-.055
.950	.101	.077	-.034	-.217	.020	-.129	.138	.114

ALPHA = 8.03 DEG Q = 224 N/SQ.M. ( 4.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.692		1.0		.748	
.010			-1.477	-.684				
.015					-.480	-.305		
.025			-.326	-.916	-.579	-.396	-.740	.362
.050			-.298	-1.077	-.298	-.312	-.593	.187
.100			-.228	-1.421	-.312	-.586	-.480	.130
.150			-.298	-1.969	-.326	-.853	-.340	-.045
.250	-.122		-.270	-2.721	-.291	-1.077	-.368	-.165
.400	-.148		-.230	-3.272	-.264	-1.135	-.284	-.216
.550	-.084	-2.081	-.148	-2.160	-.141	-.928	-.141	-.175
.700	-.002	-.284	-.080	-1.118	-.084	-.720	-.019	-.101
.850	.039	-.087	-.036	-.519	.008	-.376	.076	-.026
.950	.080	.070	-.043	-.220	.001	-.121	.117	.046

TABLE 8 (D) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 9.87 DEG      Q = .228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							-.211	
.010			-1.222	-.017				
.015					-.778	.184		
.025			-.744	-.501	-.820	-.017	-1.305	.648
.050			-.550	-.702	-.633	-.176	-.827	.413
.100			-.363	-1.201	-.481	-.488	-.612	.233
.150			-.418	-1.672	-.453	-.723	-.522	.053
.250	-.183		-.356	-2.552	-.418	-.948	-.460	-.122
.400	-.203		-.280	-3.200	-.314	-1.059	-.330	-.179
.550	-.122	-2.039	-.193	-2.129	-.223	-.934	-.176	-.176
.700	-.042	-.196	-.079	-1.116	-.102	-.730	-.062	-.095
.850	.032	-.059	-.048	-.538	-.022	-.411	.032	-.012
.950	.059	.052	-.059	-.236	-.025	-.146	.079	.032

ALPHA = 11.97 DEG      Q = .225 N/SQ.M. ( 4.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000					.824		-1.321	
.010			-1.069	.571				
.015					-1.405	.403		
.025			-1.048	-.172	-1.195	.221	-1.924	.852
.050			-.802	-.403	-.964	.053	-1.307	.648
.100			-.522	-.964	-.725	-.382	-.760	.340
.150			-.473	-1.447	-.620	-.564	-.718	.158
.250	-.228		-.445	-2.354	-.508	-.835	-.585	-.006
.400	-.268		-.441	-3.118	-.397	-.995	-.427	-.145
.550	-.159	-2.078	-.223	-2.034	-.264	-.896	-.217	-.149
.700	-.064	-.230	-.074	-1.100	-.145	-.702	-.098	-.098
.850	.008	-.030	-.020	-.539	-.060	-.427	-.006	-.013
.950	.025	.042	-.101	-.257	-.040	-.176	.045	.055

ALPHA = 13.99 DEG      Q = .225 N/SQ.M. ( 4.70 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000					.280		-2.596	
.010			-.889	.945				
.015					-1.959	.763		
.025			-1.490	.238	-1.882	.420	-2.813	.980
.050			-1.315	-.259	-1.553	.273	-1.476	.721
.100			-.707	-.693	-.833	-.119	-1.036	.448
.150			-.630	-1.224	-.805	-.441	-.868	.273
.250	-.287		-.532	-2.235	-.602	-.736	-.700	.034
.400	-.278		-.420	-3.103	-.468	-.970	-.488	-.112
.550	-.166	-2.092	-.264	-2.079	-.308	-.871	-.285	-.125
.700	-.091	-.196	-.152	-1.132	-.186	-.691	-.166	-.105
.850	-.135	-.051	-.112	-.556	-.081	-.447	-.051	-.037
.950	.033	.055	-.122	-.274	-.064	-.200	.011	.034

TABLE 8 (D) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.00 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELCC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.856		-.096		-4.077	
.010			-.679					
.015								
.025			-2.173	.453	-2.785	.780	-2.882	
.050			-1.506	.127	-1.492	.509	-1.729	.842
.100			-.825	-.408	-1.089	.036	-1.263	.648
.150			-.784	-1.006	-.916	-.242	-1.013	.384
.250	-.304		-.589	-2.106	-.686	-.611	-.756	.140
.400	-.321		-.439	-2.935	-.520	-.880	-.510	-.001
.550	-.203	-1.951	-.254	-2.022	-.314	-.826	-.291	-.075
.700	-.096	-.186	-.156	-1.096	-.183	-.671	-.139	-.065
.850	-.005	.029	-.106	-.540	-.082	-.422	-.025	-.018
.950	.039	.076	-.099	-.240	-.055	-.173	.036	.039

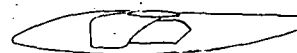
ALPHA = 18.04 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELCC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.268		-1.341		-1.279	
.010			-.523					
.015								
.025			-2.694	.622	-3.228	.892	-1.390	
.050			-1.501	.351	-1.716	.622	-1.105	.872
.100			-1.022	-.294	-1.223	.199	-1.133	.587
.150			-.863	-.911	-.953	-.134	-1.189	.421
.250	-.342		-.620	-1.934	-.717	-.515	-1.084	.218
.400	-.287		-.438	-2.929	-.522	-.801	-.673	.036
.550	-.179	-1.954	-.263	-1.964	-.297	-.791	-.404	-.038
.700	-.061	-.162	-.139	-1.097	-.236	-.636	-.303	-.055
.850	.009	.130	-.085	-.522	-.061	-.424	-.162	-.048
.950	.060	.103	-.068	-.219	-.058	-.202	-.018	-.018

ALPHA = 20.02 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELCC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.016		-1.126		-.990	
.010			-.370					
.015								
.025			-3.304	.875	-3.222	.957	-.833	
.050			-1.589	.508	-1.371	.644	-.813	.909
.100			-.990	-.105	-1.146	.242	-.888	.664
.150			-.867	-.731	-.983	-.064	-1.146	.453
.250	-.336		-.609	-1.824	-.786	-.468	-.881	.225
.400	-.320		-.448	-2.886	-.699	-.801	-.890	.047
.550	-.194	-1.788	-.283	-2.002	-.478	-.821	-.762	-.029
.700	-.115	-.135	-.221	-1.131	-.353	-.663	-.636	-.066
.850	.017	.027	-.142	-.544	-.270	-.491	-.458	-.069
.950	.079	.129	-.161	-.241	-.198	-.277	-.349	-.043

TABLE 9 (A)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES

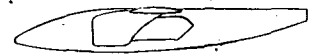


ALPHA = .01 DEG		Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000									
.010				.736		.883		.965	
.015				.380	-.441				
.025				-.216	-.554	-.074	-.357		
.050				-.250	-.445	-.267	-.403	-.326	-.344
.100				-.260	-.428	-.208	-.327	-.223	-.233
.150				-.328	-.486	-.235	-.279	-.159	-.279
.250	-.204			-.328	-.486	-.281	-.398	-.253	-.305
.400	-.329			-.331	-.439	-.361	-.402	-.316	-.366
.550	-.256	-.278		-.350	-.361	-.346	-.361	-.315	-.361
.700	-.189	-.199		-.278	-.270	-.254	-.277	-.238	-.264
.850	-.136	-.278		-.176	-.212	-.168	-.154	-.136	-.143
.950	-.109	-.106		-.054	-.203	-.041	-.076	-.020	-.046
				-.043	-.079	.015	.015	.034	.050

ALPHA = 3.98 DEG		Q = 2840 N/SC.M. (59.32 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000				.980		.790		.298	
.010				.420	.743				
.015						-1.141	.488		
.025				-1.036	.213	-1.261	.319	-1.014	.361
.050				-.829	.254	-.845	.161	-.879	.175
.100				-.588	-.002	-.649	.042	-.578	.068
.150				-.591	-.187	-.569	-.068	-.529	-.046
.250	-.364			-.513	-.229	-.543	-.166	-.537	-.140
.400	-.405			-.454	-.224	-.472	-.206	-.414	-.212
.550	-.301	-.175		-.305	-.176	-.311	-.182	-.284	-.175
.700	-.212	-.181		-.198	-.127	-.193	-.117	-.156	-.108
.850	-.138	-.389		-.110	-.191	-.063	-.067	-.050	-.048
.950	-.086	-.163		-.034	-.090	.018	.015	.036	.046

ALPHA = 8.02 DEG		Q = 2841 N/SQ.M. (59.34 LBF/SQ.FT.)		EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							
.010		.401		-.691		-2.021	
.015		.407	.999				
.025		-2.382	.749	-2.538	.942		
.050		-1.343	.551	-2.513	.768	-2.395	.762
.100		-.939	.335	-1.525	.583	-1.381	.533
.150		-.873	.150	-1.093	.349	-1.019	.338
.250	-.458	-.692	-.003	-.913	.195	-.821	.166
.400	-.445	-.557	-.078	-.740	.073	-.743	.039
.550	-.327	-.379	-.061	-.592	-.051	-.548	-.068
.700	-.226	-.239	-.062	-.391	-.073	-.362	-.095
.850	-.136	-.121	-.173	-.238	-.054	-.207	-.051
.950	-.079	-.043	-.095	-.092	-.021	-.086	-.016
				-.006	.019	-.003	.015

TABLE 9 (A) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.06 DEG      Q = 2846 N/SQ.M. (59.45 LBF/SQ.FT.)      EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.365		-1.998		-3.719	
.010			.324	.919				
.015					-4.019	.977		
.025			-2.731	.895	-2.752	.903	-2.490	.904
.050			-1.723	.718	-1.805	.722	-1.807	.717
.100			-1.180	.471	-1.286	.524	-1.228	.452
.150			-.965	.314	-1.149	.326	-1.062	.294
.250	-.509		-.791	.132	-.846	.138	-.835	.136
.400	-.485		-.603	-.041	-.641	.014	-.600	-.010
.550	-.356	-.059	-.406	.005	-.422	-.002	-.404	-.032
.700	-.238	-.127	-.250	-.020	-.248	-.021	-.225	-.030
.850	-.144	-.426	-.130	-.150	-.098	-.014	-.096	-.009
.950	-.096	-.289	-.050	-.089	-.009	.019	-.007	.022

ALPHA = 12.02 DEG      Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.378		-.191		-.836	
.010			.339	.994				
.015					-1.181	.937		
.025			-.947	.879	-.922	.841	-1.003	.825
.050			-.900	.717	-.762	.679	-1.087	.636
.100			-1.023	.508	-.969	.485	-1.143	.425
.150			-.755	.336	-1.077	.313	-1.168	.271
.250	-.646		-.944	.120	-1.002	.142	-1.020	.098
.400	-.549		-.839	-.028	-.857	-.001	-.888	-.030
.550	-.469	-.073	-.672	-.038	-.689	-.047	-.576	-.082
.700	-.309	-.135	-.366	-.080	-.500	-.076	-.419	-.056
.850	-.267	-.464	-.369	-.243	-.289	-.149	-.391	-.087
.950	-.155	-.322	-.285	-.207	-.300	-.136	-.283	-.127

ALPHA = 14.01 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.487		.049		-.803	
.010			.360	.999				
.015					-.622	.944		
.025			-.518	.882	-.537	.830	-.895	.830
.050			-.527	.734	-.630	.686	-.856	.642
.100			-.578	.525	-.519	.487	-.900	.432
.150			-.499	.355	-.557	.325	-.916	.303
.250	-.561		-.575	.130	-.670	.159	-.852	.115
.400	-.611		-.658	-.055	-.645	-.002	-.916	-.038
.550	-.613	-.096	-.700	-.063	-.739	-.081	-.849	-.103
.700	-.613	-.173	-.672	-.132	-.668	-.128	-.747	-.143
.850	-.588	-.521	-.618	-.321	-.566	-.219	-.560	-.188
.950	-.438	-.450	-.502	-.352	-.516	-.312	-.453	-.232

TABLE 9 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 15.99 DEG      Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.353		-.025		-.915	
.010			.362	.979				
.015					-.496	.965		
.025			-.455	.920	-.496	.866	-.804	.858
.050			-.469	.756	-.485	.747	-.828	.719
.100			-.480	.585	-.488	.538	-.804	.507
.150			-.481	.388	-.472	.403	-.789	.331
.250	-.485		-.512	.175	-.564	.205	-.830	.154
.400	-.566		-.601	-.006	-.612	.012	-.845	-.024
.550	-.626	-.105	-.620	-.049	-.620	-.069	-.858	-.103
.700	-.656	-.205	-.648	-.134	-.665	-.141	-.798	-.152
.850	-.660	-.567	-.618	-.368	-.621	-.256	-.682	-.222
.950	-.599	-.507	-.553	-.411	-.552	-.360	-.598	-.297

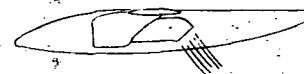
ALPHA = 18.00 DEG      Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.118		-.154		-.921	
.010			.334	.950				
.015					-.463	.975		
.025			-.503	.964	-.495	.913	-.756	.886
.050			-.501	.842	-.475	.778	-.734	.740
.100			-.485	.641	-.477	.586	-.745	.539
.150			-.458	.467	-.487	.450	-.728	.388
.250	-.509		-.528	.219	-.511	.246	-.757	.191
.400	-.508		-.555	.018	-.575	.049	-.767	-.003
.550	-.605	-.103	-.621	-.032	-.617	-.064	-.829	-.104
.700	-.691	-.236	-.656	-.146	-.628	-.135	-.829	-.172
.850	-.699	-.621	-.635	-.398	-.602	-.262	-.787	-.281
.950	-.655	-.554	-.590	-.456	-.552	-.387	-.716	-.379

ALPHA = 20.03 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.022		-.299		-.897	
.010			.314	.839				
.015					-.483	.979		
.025			-.457	.977	-.492	.949	-.699	.906
.050			-.491	.906	-.488	.821	-.687	.777
.100			-.495	.713	-.485	.664	-.705	.590
.150			-.512	.561	-.498	.507	-.691	.423
.250	-.526		-.506	.305	-.511	.314	-.731	.222
.400	-.628		-.576	.062	-.579	.086	-.746	.033
.550	-.632	-.076	-.619	.001	-.609	-.036	-.794	-.097
.700	-.681	-.234	-.654	-.123	-.644	-.120	-.785	-.177
.850	-.719	-.659	-.629	-.404	-.627	-.257	-.779	-.306
.950	-.706	-.584	-.599	-.473	-.558	-.381	-.761	-.444

TABLE 9 (B)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = .00 DEG Q = 2032 N/SQ.M. (42.44 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .291

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.593		.938		.972	
.010			-.036	-.029				
.015					-.449	-.290		
.025			-.401	-.360	-.412	-.284	-.347	-.275
.050			-.365	-.409	-.327	-.314	-.304	-.146
.100			-.388	-.437	-.350	-.198	-.362	-.258
.150			-.394	-.474	-.371	-.366	-.335	-.301
.250	-.316		-.417	-.464	-.425	-.406	-.383	-.357
.400	-.403		-.431	-.438	-.418	-.392	-.357	-.323
.550	-.369	-.282	-.348	-.353	-.335	-.340	-.297	-.272
.700	-.303	-.315	-.266	-.359	-.226	-.262	-.156	-.185
.850	-.280	-.822	-.222	-.479	-.144	-.196	-.064	-.092
.950	-.295	-.489	-.156	-.317	-.088	-.103	-.003	.008

ALPHA = 4.01 DEG Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .292

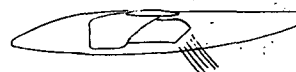
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.953		.524		.073	
.010			.015	.858				
.015					-1.539	.538		
.025			-1.262	.367	-1.455	.381	-1.323	.439
.050			-1.095	.216	-1.049	.267	-.900	.260
.100			-.759	.035	-.763	.093	-.671	.110
.150			-.665	-.175	-.699	-.052	-.599	-.042
.250	-.453		-.611	-.215	-.674	-.156	-.586	-.169
.400	-.511		-.556	-.320	-.570	-.237	-.488	-.216
.550	-.420	-.234	-.435	-.283	-.413	-.242	-.345	-.206
.700	-.353	-.369	-.339	-.315	-.306	-.206	-.211	-.145
.850	-.317	-.917	-.264	-.498	-.179	-.194	-.104	-.085
.950	-.319	-.592	-.228	-.363	-.109	-.120	-.022	-.010

ALPHA = 7.99 DEG Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.025		-1.685		-2.600	
.010			-.021	.990				
.015					-3.425	.950		
.025			-2.787	.800	-3.082	.852	-2.666	.826
.050			-1.551	.604	-1.705	.636	-1.499	.637
.100			-1.095	.393	-1.259	.402	-1.138	.377
.150			-1.018	.198	-1.060	.254	-.956	.185
.250	-.564		-.818	-.025	-.880	.047	-.819	.023
.400	-.605		-.714	-.143	-.715	-.095	-.627	-.088
.550	-.489	-.201	-.514	-.177	-.517	-.155	-.442	-.118
.700	-.401	-.338	-.397	-.260	-.362	-.170	-.284	-.096
.850	-.354	-.960	-.305	-.490	-.219	-.176	-.148	-.066
.950	-.348	-.712	-.253	-.379	-.141	-.131	-.057	-.023



TABLE 9 (B) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.05 DEG      Q = 2033 N/SQ.M. (42.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.847		-2.894		-4.110	
.010			-.158	.858				
.015					-4.791	.951		
.025			-2.771	.944	-2.953	.939	-2.850	.929
.050			-2.019	.772	-2.119	.782	-1.972	.752
.100			-1.374	.547	-1.520	.544	-1.379	.490
.150			-1.164	.366	-1.301	.359	-1.154	.317
.250	-.627		-.940	.125	-.989	.155	-.954	.121
.400	-.634		-.754	-.082	-.786	-.011	-.711	-.033
.550	-.521	-.187	-.549	-.116	-.556	-.089	-.482	-.083
.700	-.429	-.365	-.417	-.238	-.379	-.139	-.309	-.082
.850	-.373	-.972	-.319	-.485	-.238	-.168	-.173	-.071
.950	-.371	-.756	-.266	-.389	-.149	-.146	-.079	-.048

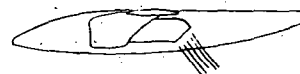
ALPHA = 11.99 DEG      Q = 2036 N/SQ.M. (42.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.049		-.503		-1.335	
.010			-.201	.943				
.015					-1.187	.963		
.025			-1.346	.926	-1.269	.875	-1.385	.859
.050			-1.133	.777	-1.244	.718	-1.371	.683
.100			-1.068	.541	-1.031	.512	-1.331	.453
.150			-1.183	.359	-1.259	.352	-1.520	.303
.250	-.761		-1.318	.109	-1.098	.151	-1.301	.112
.400	-.790		-1.018	-.089	-1.065	-.043	-1.100	-.039
.550	-.705	-.155	-.803	-.149	-.935	-.133	-.822	-.107
.700	-.491	-.340	-.603	-.287	-.636	-.209	-.607	-.131
.850	-.423	-1.002	-.478	-.549	-.555	-.281	-.415	-.151
.950	-.403	-.795	-.472	-.500	-.398	-.366	-.285	-.167

ALPHA = 13.99 DEG      Q = 2037 N/SQ.M. (42.54 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.179		-.332		-1.260	
.010			-.165	.961				
.015					-.871	.971		
.025			-.767	.948	-.804	.890	-1.250	.878
.050			-.752	.758	-.833	.752	-1.161	.721
.100			-.749	.570	-.866	.541	-1.211	.503
.150			-.783	.357	-.847	.379	-1.237	.338
.250	-.716		-.836	.134	-.933	.172	-1.265	.144
.400	-.812		-.918	-.085	-.977	-.031	-1.263	-.028
.550	-.846	-.163	-.901	-.165	-.990	-.159	-1.156	-.111
.700	-.787	-.390	-.867	-.351	-.929	-.249	-.966	-.142
.850	-.734	-1.070	-.785	-.665	-.830	-.376	-.659	-.192
.950	-.660	-.915	-.684	-.660	-.783	-.471	-.441	-.241

TABLE 9 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 15.99 DEG

Q = 2034 N/SQ.M. (42.48 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .291

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.041		-.450		-1.321	
.010			-.186	.897				
.015					-.792	.967		
.025			-.722	.955	-.799	.919	-1.141	.894
.050			-.710	.832	-.785	.784	-1.103	.741
.100			-.720	.626	-.776	.578	-1.116	.538
.150			-.731	.463	-.799	.412	-1.132	.358
.250	-.708		-.754	.174	-.839	.204	-1.133	.167
.400	-.759		-.794	-.064	-.888	-.022	-1.205	-.019
.550	-.806	-.155	-.851	-.174	-.870	-.162	-1.146	-.126
.700	-.812	-.436	-.855	-.380	-.941	-.283	-1.100	-.188
.850	-.831	-1.173	-.825	-.754	-.880	-.457	-.898	-.250
.950	-.787	-1.023	-.754	-.749	-.831	-.597	-.750	-.376

ALPHA = 18.03 DEG

Q = 2032 N/SQ.M. (42.45 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .291

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.117		-.574		-1.300	
.010			-.205	.821				
.015					-.806	.975		
.025			-.701	.975	-.795	.958	-1.037	.917
.050			-.699	.885	-.778	.827	-1.027	.790
.100			-.706	.688	-.775	.644	-1.079	.585
.150			-.723	.525	-.792	.487	-1.039	.419
.250	-.716		-.747	.234	-.801	.253	-1.061	.202
.400	-.774		-.796	-.022	-.871	.016	-1.110	.003
.550	-.818	-.162	-.828	-.163	-.895	-.158	-1.150	-.122
.700	-.830	-.461	-.840	-.382	-.923	-.292	-1.131	-.206
.850	-.849	-1.241	-.838	-.773	-.914	-.472	-1.017	-.341
.950	-.847	-1.088	-.775	-.795	-.874	-.643	-.914	-.470

ALPHA = 19.99 DEG

Q = 2038 N/SQ.M. (42.56 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .291

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.310		-.735		-1.402	
.010			-.241	.744				
.015					-.809	.938		
.025			-.713	.976	-.822	.959	-1.072	.924
.050			-.718	.917	-.807	.867	-1.039	.812
.100			-.737	.764	-.816	.699	-1.086	.618
.150			-.737	.597	-.812	.562	-1.054	.457
.250	-.725		-.763	.318	-.840	.318	-1.058	.243
.400	-.810		-.811	.022	-.894	.061	-1.121	.031
.550	-.842	-.125	-.865	-.130	-.943	-.135	-1.109	-.116
.700	-.851	-.446	-.881	-.382	-.965	-.285	-1.102	-.227
.850	-.906	-1.286	-.868	-.811	-.939	-.484	-1.081	-.382
.950	-.912	-1.132	-.802	-.810	-.899	-.657	-.987	-.550

TABLE 9 (C)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = .01 DEG Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.601		.762		.923	
.010			-2.213	-.194				
.015					-.463	-.421		
.025			-.342	-.508	-.409	-.494	-.283	-.070
.050			-.352	-.418	-.286	-.418	-.397	-.234
.100			-.369	-.491	-.383	-.324	-.309	-.226
.150			-.461	-.532	-.390	-.404	-.345	-.340
.250	-.323		-.446	-.555	-.375	-.456	-.397	-.356
.400	-.412		-.476	-.493	-.442	-.423	-.360	-.380
.550	-.366	-.337	-.389	-.431	-.367	-.391	-.293	-.305
.700	-.318	-.392	-.327	-.446	-.281	-.332	-.205	-.212
.850	-.315	-.945	-.266	-.574	-.178	-.259	-.093	-.129
.950	-.345	-.615	-.254	-.400	-.127	-.156	-.036	-.035

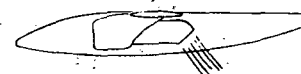
ALPHA = 4.02 DEG Q = 908 N/SQ.M. (18.97 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.929		.716		.169	
.010			-2.027	.641				
.015					-1.241	.495		
.025			-1.189	.343	-1.562	.339	-1.206	.395
.050			-.957	.162	-1.080	.180	-.913	.256
.100			-.655	-.054	-.710	.057	-.722	.006
.150			-.705	-.094	-.733	-.046	-.667	-.089
.250	-.483		-.629	-.334	-.670	-.203	-.648	-.209
.400	-.549		-.601	-.376	-.583	-.323	-.516	-.255
.550	-.464	-.328	-.465	-.353	-.475	-.310	-.388	-.234
.700	-.398	-.473	-.377	-.416	-.332	-.296	-.264	-.186
.850	-.385	-1.030	-.318	-.592	-.225	-.269	-.148	-.132
.950	-.392	-.752	-.285	-.447	-.175	-.203	-.073	-.062

ALPHA = 8.00 DEG Q = 906 N/SQ.M. (18.92 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.090		-1.011		-2.345	
.010			-1.884	.934				
.015					-3.141	.906		
.025			-2.522	.800	-2.924	.786	-2.962	.783
.050			-1.562	.569	-1.670	.602	-1.553	.532
.100			-1.150	.376	-1.238	.377	-1.188	.296
.150			-1.009	.125	-1.118	.179	-.990	.163
.250	-.598		-.852	.068	-.974	-.018	-.882	-.026
.400	-.641		-.734	-.245	-.765	.169	-.671	-.141
.550	-.536	-.310	-.559	-.260	-.557	-.222	-.490	-.186
.700	-.460	-.453	-.452	-.367	-.415	-.242	-.329	-.156
.850	-.420	-1.089	-.369	-.597	-.289	-.255	-.208	-.135
.950	-.438	-.829	-.335	-.465	-.220	-.198	-.124	-.085

TABLE 9 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.01 DEG Q = 909 N/SQ.M. (18.99 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.312		-2.995		-4.543	
.010			-1.841	.830				
.015					-4.205	.915		
.025			-2.867	.904	-3.094	.892	-2.796	.863
.050			-1.940	.702	-2.113	.740	-2.020	.690
.100			-1.356	.482	-1.517	.482	-1.434	.445
.150			-1.214	.287	-1.295	.305	-1.170	.261
.250	-.662		-.969	.037	-1.051	.079	-.980	.078
.400	-.681		-.754	-.155	-.831	-.098	-.756	-.078
.550	-.577	-.279	-.622	-.219	-.604	-.189	-.529	-.145
.700	-.486	-.419	-.482	-.361	-.448	-.234	-.367	-.146
.850	-.445	-1.128	-.357	-.609	-.306	-.261	-.236	-.136
.950	-.461	-.881	-.348	-.511	-.241	-.230	-.145	-.110

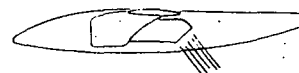
ALPHA = 11.97 DEG Q = 907 N/SQ.M. (18.94 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.127		-.751		-1.684	
.010			-1.856	.864				
.015					-1.444	.923		
.025			-1.606	.881	-1.078	.843	-1.590	.813
.050			-1.648	.735	-1.319	.679	-1.580	.643
.100			-1.350	.490	-1.736	.493	-1.484	.424
.150			-1.630	.307	-1.248	.299	-1.721	.243
.250	-.812		-1.430	.053	-1.357	.101	-1.429	.061
.400	-.801		-1.115	-.164	-1.080	-.102	-1.057	-.090
.550	-.684	-.241	-.878	-.240	-.903	-.211	-.853	-.170
.700	-.585	-.436	-.625	-.396	-.609	-.278	-.517	-.199
.850	-.490	-1.176	-.474	-.673	-.520	-.345	-.365	-.231
.950	-.481	-.920	-.435	-.586	-.668	-.399	-.324	-.216

ALPHA = 14.00 DEG Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.068		-.499		-1.511	
.010			-1.929	.859				
.015					-.986	.911		
.025			-.972	.842	-.991	.845	-1.324	.835
.050			-1.012	.750	-.975	.686	-1.411	.654
.100			-.977	.541	-.972	.493	-1.329	.439
.150			-1.115	.336	-1.010	.320	-1.357	.265
.250	-.846		-1.181	.086	-1.133	.108	-1.399	.070
.400	-.938		-1.149	-.156	-1.126	-.090	-1.361	-.084
.550	-.896	-.250	-.994	-.242	-1.077	-.247	-1.245	-.176
.700	-.826	-.475	-.952	-.442	-1.002	-.315	-1.034	-.208
.850	-.675	-1.245	-.824	-.737	-.903	-.430	-.742	-.272
.950	-.639	-1.017	-.665	-.727	-.834	-.610	-.536	-.267

TABLE 9 (C) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.01 DEG      Q = 907 N/SQ.M. (18.95 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.052		-.555		-1.521	
.010			-1.957	.831				
.015					-.957	.914		
.025			-.823	.899	-.948	.866	-1.330	.841
.050			-.840	.791	-.906	.744	-1.304	.699
.100			-.821	.572	-.915	.532	-1.262	.490
.150			-.861	.400	-.934	.364	-1.267	.317
.250	-.811		-.873	.105	-.936	.148	-1.281	.057
.400	-.860		-.942	-.129	-1.073	-.105	-1.347	-.089
.550	-.967	-.252	-.982	-.269	-1.057	-.265	-1.322	-.189
.700	-.950	-.540	-.955	-.488	-1.035	-.389	-1.183	-.259
.850	-.888	-1.375	-.921	-.871	-1.000	-.557	-.949	-.336
.950	-.834	-1.180	-.817	-.821	-.908	-.695	-.737	-.419

ALPHA = 17.97 DEG      Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.190		-.710		-1.547	
.010			-1.889	.751				
.015					-.906	.910		
.025			-.838	.914	-.895	.895	-1.208	.864
.050			-.814	.822	-.899	.776	-1.189	.741
.100			-.821	.634	-.916	.592	-1.193	.535
.150			-.830	.468	-.918	.423	-1.194	.363
.250	-.821		-.859	.157	-.928	.179	-1.224	.141
.400	-.920		-.919	-.116	-.945	-.085	-1.271	-.072
.550	-.918	-.237	-.940	-.262	-1.004	-.250	-1.275	-.191
.700	-.922	-.538	-.947	-.510	-1.039	-.394	-1.219	-.275
.850	-.936	-1.438	-.955	-.915	-1.011	-.597	-1.114	-.407
.950	-.919	-1.239	-.868	-.895	-.945	-.746	-.964	-.507

ALPHA = 20.01 DEG      Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .194

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.473		-.892		-1.537	
.010			-1.939	.645				
.015					-.932	.875		
.025			-.822	.907	-.927	.904	-1.219	.868
.050			-.861	.864	-.913	.818	-1.219	.778
.100			-.847	.693	-.922	.622	-1.167	.564
.150			-.870	.524	-.936	.465	-1.164	.388
.250	-.841		-.892	.221	-.965	.241	-1.184	.178
.400	-.937		-.939	-.072	-1.023	-.033	-1.231	-.054
.550	-.932	-.244	-.964	-.251	-1.069	-.227	-1.270	-.187
.700	-.979	-.537	-.992	-.525	-1.077	-.412	-1.304	-.307
.850	-1.061	-1.509	-.982	-.968	-1.073	-.608	-1.172	-.465
.950	-.979	-1.299	-.931	-.937	-1.013	-.778	-1.073	-.627

TABLE 9 (D)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 0.00 DEG Q = 226 N/SQ.M. ( 4.73 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.217		.440		.628	
.010			-8.025	-.611				
.015					-.166	-.758		
.025			-.382	-.959	-.368	-.834	-.465	-.737
.050			-.458	-.918	-.451	-.737	-.416	-.479
.100			-.430	-.737	-.458	-.716	-.479	-.618
.150			-.521	-.855	-.500	-.751	-.500	-.681
.250	-.521		-.556	-.923	-.549	-.741	-.535	-.680
.400	-.613		-.606	-.839	-.620	-.751	-.559	-.643
.550	-.566	-.670	-.586	-.772	-.556	-.704	-.492	-.579
.700	-.573	-.741	-.542	-.788	-.488	-.654	-.431	-.522
.850	-.589	-1.396	-.522	-.913	-.434	-.586	-.357	-.424
.950	-.657	-1.038	-.542	-.768	-.404	-.471	-.303	-.306

ALPHA = 4.06 DEG Q = 229 N/SQ.M. ( 4.78 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.625		.487		.129	
.010			-7.243	.260				
.015					-1.394	.205		
.025			-1.242	.012	-1.366	-.043	-1.215	.094
.050			-.932	-.202	-1.049	-.126	-.925	-.236
.100			-.774	-.450	-.856	-.312	-.815	-.278
.150			-.808	-.484	-.829	-.457	-.843	-.381
.250	-.643		-.781	-.673	-.815	-.527	-.836	-.510
.400	-.704		-.744	-.704	-.740	-.623	-.734	-.543
.550	-.650	-.657	-.673	-.677	-.667	-.617	-.620	-.496
.700	-.617	-.824	-.600	-.730	-.567	-.590	-.476	-.440
.850	-.623	-1.405	-.583	-.857	-.483	-.523	-.406	-.376
.950	-.690	-1.121	-.583	-.760	-.463	-.473	-.346	-.346

ALPHA = 7.99 DEG Q = 228 N/SQ.M. ( 4.77 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.065		-.771		-1.606	
.010			-6.616	.630				
.015					-2.972	.568		
.025			-2.192	.423	-2.510	.396	-2.165	.389
.050			-1.647	.203	-1.764	.209	-1.744	.223
.100			-1.136	-.067	-1.233	-.018	-1.116	-.053
.150			-1.055	-.239	-1.157	-.143	-1.088	-.170
.250	-.743		-.978	-.440	-1.012	-.353	-1.005	-.329
.400	-.791		-.861	-.570	-.888	-.487	-.841	-.446
.550	-.714	-.707	-.754	-.594	-.751	-.527	-.681	-.453
.700	-.684	-.888	-.671	-.701	-.640	-.550	-.553	-.430
.850	-.674	-1.503	-.627	-.881	-.537	-.533	-.440	-.390
.950	-.748	-1.156	-.634	-.758	-.490	-.470	-.380	-.349

TABLE 9 (D) CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.04 DEG Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.570		-2.488		-3.850	
.010			-6.157	.584				
.015					-3.627			
.025			-3.641	.535	-3.370	.515	-3.419	.508
.050			-1.765	.369	-1.959	.348	-1.883	.327
.100			-1.348	.098	-1.515	.125	-1.459	.077
.150			-1.285	-.069	-1.369	-.055	-1.292	-.097
.250	-.806		-1.077	-.368	-1.153	-.264	-1.202	-.250
.400	-.877		-.954	-.527	-.995	-.453	-.927	-.399
.550	-.796	-.729	-.813	-.581	-.816	-.527	-.749	-.439
.700	-.722	-.917	-.725	-.709	-.695	-.567	-.594	-.436
.850	-.719	-1.551	-.682	-.904	-.584	-.607	-.496	-.426
.950	-.786	-1.224	-.675	-.776	-.523	-.513	-.419	-.392

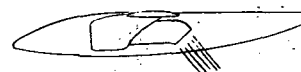
ALPHA = 12.02 DEG Q = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.077		-3.543		-4.692	
.010			-5.745	.433				
.015					-5.073	.599		
.025			-2.559	.613	-3.723		-3.363	.571
.050			-2.102	.446	-2.324	.453	-2.213	.426
.100			-1.590	.211	-1.984	.225	-1.666	.169
.150			-1.403	.017	-1.881	.017	-1.444	-.025
.250	-.869		-1.500	-.274	-1.437	-.214	-1.202	-.214
.400	-.922		-1.026	-.496	-1.053	-.415	-1.006	-.375
.550	-.828	-.737	-.852	-.586	-.872	-.523	-.798	-.442
.700	-.764	-.925	-.764	-.717	-.721	-.583	-.650	-.455
.850	-.741	-1.570	-.697	-.939	-.613	-.596	-.539	-.455
.950	-.815	-1.214	-.697	-.811	-.573	-.549	-.455	-.442

ALPHA = 14.04 DEG Q = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.596		-1.025		-1.884	
.010			-5.375	.477				
.015					-1.337	.574		
.025			-1.676	.554	-1.586	.505	-1.732	.491
.050			-1.669	.429	-1.503	.360	-1.663	.332
.100			-1.649	.214	-1.392	.152	-1.669	.124
.150			-1.545	.006	-1.573	-.013	-1.683	-.049
.250	-1.095		-1.427	-.272	-1.545	-.231	-1.621	-.235
.400	-1.014		-1.343	-.493	-1.410	-.436	-1.487	-.406
.550	-.930	-.708	-1.040	-.604	-1.084	-.537	-1.218	-.480
.700	-.940	-.923	-1.003	-.765	-.993	-.631	-1.158	-.503
.850	-.802	-1.604	-.802	-1.000	-.997	-.705	-.701	-.547
.950	-.856	-1.212	-.742	-.859	-.772	-.675	-.668	-.534

TABLE 9 (D) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.00 DEG      Q = 225 N/SQ.M. ( 4.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .096

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.402		-.858		-1.846	
.010			-5.064	.460				
.015					-1.271	.544		
.025			-1.257	.544	-1.327	.488	-1.594	.474
.050			-1.257	.418	-1.299	.362	-1.650	.334
.100			-1.398	.208	-1.257	.159	-1.538	.138
.150			-1.285	.019	-1.264	-.045	-1.587	-.059
.250	-1.201		-1.447	-.271	-1.334	-.237	-1.594	-.237
.400	-1.253		-1.358	-.509	-1.331	-.448	-1.586	-.410
.550	-1.219	-.702	-1.290	-.618	-1.345	-.590	-1.501	-.455
.700	-1.141	-.988	-1.171	-.808	-1.283	-.702	-1.134	-.560
.850	-1.018	-1.688	-1.069	-1.134	-1.192	-.815	-.988	-.594
.950	-.920	-1.260	-.951	-.998	-1.039	-.855	-.957	-.679

ALPHA = 18.01 DEG      Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .096

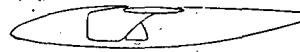
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.510		-.935		-1.891	
.010			-4.736	.418				
.015					-1.235	.501		
.025			-1.159	.508	-1.277	.466	-1.514	.459
.050			-1.103	.404	-1.200	.348	-1.570	.334
.100			-1.110	.194	-1.179	.201	-1.584	.118
.150			-1.159	.027	-1.207	.013	-1.584	-.064
.250	-1.131		-1.193	-.245	-1.263	-.225	-1.500	-.231
.400	-1.158		-1.232	-.519	-1.242	-.451	-1.590	-.427
.550	-1.222	-.759	-1.286	-.644	-1.310	-.617	-1.550	-.529
.700	-1.252	-1.002	-1.245	-.867	-1.300	-.749	-1.489	-.613
.850	-1.296	-1.763	-1.171	-1.195	-1.259	-.874	-1.293	-.722
.950	-1.137	-1.300	-1.120	-1.090	-1.134	-1.009	-1.171	-.833

ALPHA = 20.00 DEG      Q = 226 N/SC.M. ( 4.73 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.657		-1.067		-1.763	
.010			-4.416	.290				
.015					-1.172	.499		
.025			-1.116	.506	-1.172	.499	-1.478	.471
.050			-1.109	.450	-1.227	.388	-1.443	.360
.100			-1.151	.262	-1.179	.200	-1.450	.151
.150			-1.055	.095	-1.172	.074	-1.450	-.009
.250	-1.158		-1.151	-.196	-1.186	-.182	-1.450	-.226
.400	-1.174		-1.188	-.506	-1.258	-.445	-1.468	-.412
.550	-1.292	-.732	-1.252	-.675	-1.285	-.614	-1.538	-.550
.700	-1.312	-1.022	-1.255	-.901	-1.302	-.769	-1.481	-.648
.850	-1.245	-1.862	-1.231	-1.242	-1.258	-.941	-1.390	-.789
.950	-1.235	-1.414	-1.167	-1.157	-1.221	-1.059	-1.248	-.931



TABLE 10 (A)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = .02 DEG Q = 2840 N/SQ.M. (59.31 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.825		.938		.968	
.010			.517	.045				
.015					-.334	-.009		
.025			-.700	-.272	-.603	-.249	-.387	-.204
.050			-.414	-.312	-.406	-.226	-.366	-.236
.100			-.362	-.371	-.403	-.278	-.277	-.236
.150			-.473	-.483	-.394	-.334	-.355	-.315
.250	-.312		-.409	-.509	-.409	-.406	-.366	-.337
.400	-.403		-.427	-.432	-.410	-.409	-.358	-.354
.550	-.323	-.353	-.335	-.351	-.308	-.352	-.260	-.271
.700	-.278	-.391	-.232	-.258	-.199	-.274	-.135	-.194
.850	-.260	-.411	-.179	-.305	-.094	-.144	-.043	-.071
.950	-.299	-.427	-.151	-.196	-.025	-.048	.017	.026

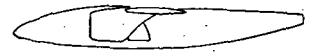
ALPHA = 4.04 DEG Q = 2851 N/SQ.M. (59.55 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.962		.608		-.063	
.010			.524	.835				
.015					-1.510	.614		
.025			-1.299	.409	-1.383	.440	-1.180	.460
.050			-.932	.176	-1.046	.247	-1.052	.232
.100			-.651	.017	-.697	.099	-.648	.108
.150			-.688	-.153	-.694	-.064	-.590	-.036
.250	-.405		-.583	-.309	-.587	-.200	-.581	-.133
.400	-.455		-.505	-.339	-.512	-.296	-.463	-.211
.550	-.366	-.337	-.375	-.315	-.359	-.264	-.319	-.190
.700	-.290	-.362	-.267	-.274	-.232	-.219	-.181	-.134
.850	-.254	-.388	-.175	-.247	-.108	-.144	-.073	-.074
.950	-.250	-.355	-.106	-.131	-.022	-.049	.018	.021

ALPHA = 8.03 DEG Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.183		-1.229		-2.083	
.010			.494	1.00				
.015					-2.904	.939		
.025			-2.542	.808	-3.184	.777	-2.460	.790
.050			-1.457	.638	-1.534	.645	-1.489	.570
.100			-1.006	.395	-1.145	.396	-1.089	.350
.150			-.927	.161	-1.005	.221	-.897	.234
.250	-.490		-.731	-.117	-.791	-.028	-.759	.035
.400	-.492		-.592	-.312	-.655	-.171	-.585	-.079
.550	-.382	-.307	-.415	-.353	-.439	-.196	-.395	-.109
.700	-.280	-.366	-.277	-.299	-.270	-.172	-.232	-.083
.850	-.201	-.298	-.153	-.215	-.121	-.125	-.107	-.037
.950	-.170	-.237	-.068	-.110	-.034	-.050	-.019	-.001

TABLE 10 (A) -- CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



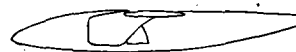
ALPHA = 10.04 DEG		Q = 2845 N/SQ.M. (59.43 LBF/SQ.FT.)		EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							
.010							
.015							
.025							
.050							
.100							
.150							
.250							
.400							
.550							
.700							
.850							
.950							

ALPHA = 12.02 DEG		Q = 2843 N/SQ.M. (59.37 LBF/SQ.FT.)		EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							
.010							
.015							
.025							
.050							
.100							
.150							
.250							
.400							
.550							
.700							
.850							
.950							

ALPHA = 14.03 DEG		Q = 2843 N/SQ.M. (59.39 LBF/SQ.FT.)		EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800	
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							
.010		.422		.062		.742	
.015		.460	1.00				
.025		.564	.904	.561	.947		
.050		.542	.718	.580	.820	.835	.827
.100		.546	.473	.612	.670	.878	.654
.150		.590	.292	.523	.470	.872	.445
.250	.536	.585	.019	.625	.281	.814	.283
.400	.614	.716	.299	.757	.064	.883	.094
.550	.608	.770	.369	.607	.130	.888	.068
.700	.661	.697	.349	.700	.223	.848	.147
.850	.512	.605	.362	.686	.237	.765	.165
.950	.416	.500	.373	.603	.310	.609	.213
				.491	.362	.528	.267

TABLE 10 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.02 DEG

Q = 2844 N/SQ.M. (59.41 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.325		.040		-.776	
.010			.477	.978				
.015					-.501	.970		
.025			-.456	.927	-.492	.861	-.755	.855
.050			-.505	.755	-.494	.723	-.762	.682
.100			-.508	.534	-.470	.494	-.786	.499
.150			-.540	.313	-.505	.316	-.791	.310
.250	-.535		-.551	-.001	-.525	.103	-.790	.120
.400	-.602		-.614	-.302	-.621	-.125	-.851	-.043
.550	-.660	-.384	-.694	-.381	-.613	-.219	-.858	-.136
.700	-.721	-.411	-.696	-.373	-.661	-.269	-.798	-.188
.850	-.658	-.393	-.636	-.393	-.606	-.322	-.689	-.282
.950	-.485	-.347	-.565	-.403	-.536	-.390	-.641	-.319

ALPHA = 18.02 DEG

Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.199		-.032		-.860	
.010			.476	.936				
.015					-.475	.985		
.025			-.523	.969	-.472	.902	-.699	.880
.050			-.514	.844	-.465	.756	-.721	.736
.100			-.523	.617	-.465	.558	-.717	.515
.150			-.526	.387	-.481	.369	-.728	.366
.250	-.556		-.570	.046	-.513	.129	-.729	.139
.400	-.639		-.657	-.291	-.564	-.098	-.749	-.033
.550	-.699	-.401	-.673	-.370	-.590	-.227	-.799	-.135
.700	-.716	-.413	-.669	-.361	-.629	-.263	-.822	-.196
.850	-.673	-.395	-.656	-.381	-.595	-.332	-.789	-.298
.950	-.565	-.396	-.582	-.401	-.520	-.400	-.754	-.399

ALPHA = 20.04 DEG

Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.042		-.161		-.761	
.010			.465	.886				
.015					-.476	1.004		
.025			-.511	.996	-.473	.948	-.631	.908
.050			-.554	.893	-.478	.825	-.628	.784
.100			-.547	.674	-.475	.610	-.602	.562
.150			-.559	.453	-.478	.432	-.637	.400
.250	-.577		-.607	.060	-.531	.185	-.620	.195
.400	-.641		-.645	-.283	-.559	-.072	-.710	.016
.550	-.710	-.394	-.687	-.315	-.623	-.174	-.729	-.118
.700	-.750	-.429	-.690	-.345	-.611	-.248	-.717	-.203
.850	-.685	-.407	-.640	-.400	-.582	-.309	-.727	-.315
.950	-.595	-.408	-.632	-.419	-.523	-.389	-.744	-.459

TABLE 10 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = .01 DEG Q = 2029 N/SQ.M. (42.38 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.655		.943		.937	
.010			.263	-.247				
.015					-.361	-.570		
.025			-.693	-.786	-.559	-.564	-.311	-.319
.050			-.459	-.654	-.521	-.501	-.506	-.210
.100			-.469	-.862	-.463	-.639	-.420	-.338
.150			-.537	-1.068	-.514	-.832	-.498	-.443
.250	-.400		-.536	-1.259	-.517	-.911	-.484	-.491
.400	-.492		-.515	-1.302	-.507	-.990	-.452	-.520
.550	-.431	-1.507	-.438	-1.268	-.412	-.889	-.348	-.437
.700	-.398	-1.717	-.352	-1.149	-.305	-.736	-.221	-.343
.850	-.431	-1.583	-.325	-.890	-.226	-.523	-.142	-.221
.950	-.629	-1.529	-.332	-.530	-.202	-.315	-.083	-.102

ALPHA = 4.01 DEG Q = 2036 N/SQ.M. (42.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.990		.758		.184	
.010			.301	.621				
.015					-1.736	.372		
.025			-1.444	.057	-1.478	.132	-1.355	.311
.050			-1.137	-.128	-1.287	.023	-1.239	.279
.100			-.849	-.349	-.870	-.142	-.758	-.019
.150			-.800	-.696	-.789	-.422	-.770	-.168
.250	-.491		-.742	-1.010	-.791	-.663	-.697	-.249
.400	-.580		-.645	-1.278	-.675	-.867	-.574	-.405
.550	-.485	-1.506	-.506	-1.248	-.509	-.848	-.438	-.381
.700	-.441	-1.552	-.407	-1.115	-.380	-.705	-.293	-.311
.850	-.437	-1.560	-.358	-.856	-.278	-.530	-.175	-.231
.950	-.576	-1.351	-.332	-.541	-.216	-.335	-.099	-.122

ALPHA = 8.03 DEG Q = 2037 N/SQ.M. (42.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.317		-1.338		-2.375	
.010			.327	1.0				
.015					-3.893	.912		
.025			-3.048	.733	-3.333	.778	-2.678	.849
.050			-1.714	.472	-1.922	.450	-1.754	.576
.100			-1.199	-.039	-1.363	.139	-1.282	.292
.150			-1.131	-.314	-1.188	-.121	-1.082	.075
.250	-.608		-.929	-.828	-1.007	-.448	-.956	-.120
.400	-.660		-.790	-1.156	-.787	-.735	-.716	-.276
.550	-.553	-1.486	-.580	-1.169	-.594	-.768	-.517	-.302
.700	-.464	-1.490	-.472	-1.083	-.448	-.696	-.348	-.261
.850	-.450	-1.390	-.391	-.848	-.323	-.556	-.216	-.224
.950	-.528	-1.150	-.346	-.554	-.249	-.361	-.130	-.141

TABLE 10 (B) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.02 DEG      Q = 2040 N/SQ.M. (42.62 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.799		-2.945		-4.344	
.010			.300	.920				
.015					-5.245	1.001		
.025			-3.383	.907	-3.692	.910	-3.260	.926
.050			-2.287	.681	-2.441	.629	-2.172	.665
.100			-1.445	.219	-1.746	.291	-1.527	.387
.150			-1.295	-.146	-1.462	.029	-1.309	.205
.250	-.683		-1.030	-.713	-1.106	-.323	-1.071	-.029
.400	-.708		-.852	-1.113	-.875	-.612	-.787	-.218
.550	-.592	-1.537	-.632	-1.190	-.645	-.726	-.561	-.268
.700	-.492	-1.482	-.454	-1.033	-.484	-.676	-.389	-.244
.850	-.456	-1.350	-.410	-.859	-.335	-.557	-.243	-.222
.950	-.526	-1.120	-.371	-.561	-.275	-.388	-.158	-.155

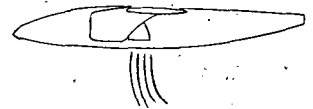
ALPHA = 12.02 DEG      Q = 2035 N/SQ.M. (42.50 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .301

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.349		-4.492		-6.242	
.010			.191	.783				
.015					-4.915	.961		
.025			-3.935	.993	-4.422	.983	-3.640	.975
.050			-2.580	.769	-2.848	.761	-2.507	.784
.100			-1.721	.391	-1.910	.471	-1.726	.529
.150			-1.414	.014	-1.624	.116	-1.439	.313
.250	-.714		-1.121	-.595	-1.213	-.219	-1.147	.044
.400	-.737		-.887	-1.102	-.943	-.572	-.843	-.171
.550	-.601	-1.507	-.673	-1.190	-.687	-.693	-.605	-.241
.700	-.526	-1.551	-.528	-1.096	-.500	-.685	-.409	-.235
.850	-.474	-1.401	-.422	-.873	-.354	-.572	-.271	-.221
.950	-.509	-1.059	-.370	-.587	-.288	-.419	-.181	-.167

ALPHA = 14.01 DEG      Q = 2040 N/SQ.M. (42.60 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .301

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.147		-.352		-1.476	
.010			.232	.983				
.015					-1.046	.977		
.025			-1.232	.918	-1.053	.850	-1.315	.881
.050			-1.101	.690	-1.254	.633	-1.369	.700
.100			-1.182	.325	-.973	.344	-1.346	.423
.150			-.983	-.022	-1.106	.068	-1.340	.218
.250	-.915		-1.221	-.608	-1.177	-.300	-1.314	-.014
.400	-.972		-1.128	-1.112	-1.111	-.634	-1.283	-.220
.550	-.892	-1.466	-1.038	-1.203	-1.095	-.776	-1.201	-.311
.700	-.789	-1.418	-.955	-1.134	-.977	-.781	-.910	-.347
.850	-.672	-1.349	-.615	-.965	-.854	-.746	-.643	-.346
.950	-.608	-1.052	-.585	-.698	-.672	-.714	-.598	-.343

TABLE 10 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.04 DEG Q = 2044 N/SQ.M. (42.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.103		-.370		-1.508	
.010			.269	.978				
.015					-.861	.978		
.025			-.866	.923	-.872	.889	-1.220	.896
.050			-.749	.743	-.815	.667	-1.217	.717
.100			-.819	.379	-.829	.397	-1.216	.458
.150			-.816	.040	-.909	.121	-1.233	.256
.250	-.780		-.856	-.562	-.909	-.246	-1.216	.020
.400	-.934		-.955	-1.060	-.999	-.622	-1.275	-.211
.550	-.958	-1.401	-.961	-1.205	-1.010	-.823	-1.225	-.328
.700	-.936	-1.359	-.982	-1.170	-.997	-.858	-1.121	-.384
.850	-.815	-1.372	-.912	-1.038	-.923	-.857	-.917	-.416
.950	-.742	-1.007	-.783	-.882	-.797	-.810	-.800	-.486

ALPHA = 18.03 DEG Q = 2029 N/SQ.M. (42.37 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.013		-.401		-1.427	
.010			.270	.916				
.015					-.828	.995		
.025			-.731	.982	-.807	.923	-1.159	.921
.050			-.766	.791	-.773	.738	-1.108	.748
.100			-.745	.421	-.800	.457	-1.113	.503
.150			-.769	.156	-.793	.200	-1.081	.325
.250	-.767		-.745	-.492	-.825	-.195	-1.076	.059
.400	-.884		-.867	-.981	-.941	-.592	-1.166	-.195
.550	-.912	-1.299	-.855	-1.224	-.949	-.805	-1.134	-.332
.700	-.974	-1.328	-.951	-1.187	-.957	-.840	-1.140	-.411
.850	-.974	-1.273	-.854	-1.070	-.946	-.878	-1.070	-.521
.950	-.867	-1.053	-.785	-.894	-.890	-.845	-.917	-.616

ALPHA = 20.02 DEG Q = 2037 N/SQ.M. (42.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.228		-.545		-1.456	
.010			.206	.823				
.015					-.749	.988		
.025			-.746	.994	-.744	.958	-1.004	.925
.050			-.718	.826	-.748	.780	-.977	.785
.100			-.717	.514	-.753	.493	-1.019	.572
.150			-.731	.199	-.776	.244	-1.011	.360
.250	-.707		-.747	-.257	-.807	-.144	-1.039	.094
.400	-.867		-.831	-.948	-.844	-.531	-1.094	-.161
.550	-.905	-1.264	-.919	-1.115	-.930	-.741	-1.100	-.335
.700	-.971	-1.328	-.932	-1.096	-.979	-.847	-1.153	-.431
.850	-.967	-1.190	-.913	-1.025	-.931	-.890	-1.114	-.567
.950	-.906	-1.100	-.813	-.934	-.881	-.877	-1.031	-.692

TABLE 10 (C)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG Q = 913 N/SQ.M. (19.06 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .203

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.152		.191		.898	
.010			-.451	-1.520				
.015					.158	-1.603		
.025			-.163	-1.669	-.023	-1.534	-.144	-.701
.050			-.253	-1.223	-.170	-1.183	-.171	-.717
.100			-.349	-1.380	-.287	-1.171	-.332	-.596
.150			-.387	-1.489	-.339	-1.311	-.304	-.746
.250	-.354		-.465	-1.546	-.463	-1.381	-.437	-.780
.400	-.465		-.458	-1.892	-.473	-1.398	-.420	-.701
.550	-.413	-3.704	-.432	-2.100	-.401	-1.280	-.336	-.630
.700	-.385	-4.107	-.391	-2.016	-.348	-1.043	-.267	-.473
.850	-.445	-3.020	-.351	-1.485	-.291	-.735	-.172	-.305
.950	-.697	-2.297	-.443	-.810	-.276	-.451	-.128	-.164

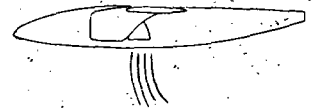
ALPHA = 4.00 DEG Q = 904 N/SQ.M. (18.87 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.651		.943		.819	
.010			-.517	-.046				
.015					-.766	-.330		
.025			-.880	-.697	-.894	-.740	-.885	.024
.050			-.765	-.742	-.712	-.618	-.829	-.189
.100			-.569	-1.011	-.662	-.784	-.627	-.296
.150			-.655	-1.208	-.596	-.986	-.639	-.426
.250	-.453		-.603	-1.527	-.644	-1.146	-.608	-.533
.400	-.523		-.553	-1.867	-.605	-1.306	-.545	-.593
.550	-.449	-3.002	-.473	-2.118	-.501	-1.215	-.410	-.530
.700	-.402	-3.837	-.403	-1.958	-.381	-1.051	-.284	-.448
.850	-.428	-2.956	-.401	-1.370	-.302	-.708	-.190	-.303
.950	-.594	-1.986	-.443	-.803	-.281	-.454	-.132	-.158

ALPHA = 7.98 DEG Q = 904 N/SQ.M. (18.88 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.940		.682		-1.018	
.010			-.469	.743				
.015					-1.921	.469		
.025			-1.806	.080	-1.830	.139	-1.693	.499
.050			-1.321	-.159	-1.443	-.106	-1.475	.204
.100			-.952	-.560	-1.081	-.389	-1.008	.007
.150			-.927	-.884	-.926	-.690	-.887	-.195
.250	-.532		-.788	-1.327	-.826	-.914	-.819	-.344
.400	-.576		-.675	-1.769	-.719	-1.135	-.648	-.457
.550	-.479	-3.472	-.536	-2.043	-.550	-1.136	-.479	-.457
.700	-.408	-3.585	-.439	-1.845	-.418	-.969	-.328	-.385
.850	-.408	-2.902	-.405	-1.328	-.320	-.691	-.226	-.294
.950	-.547	-2.056	-.416	-.740	-.287	-.439	-.150	-.190

TABLE 10 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.02 DEG Q = 905 N/SQ.M. (18.90 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.788		.175		-1.802	
.010			-.374	.917				
.015					-2.856	.666		
.025			-2.344	.424	-2.405	.473	-2.788	.760
.050			-1.527	.053	-1.661	.105	-1.638	.461
.100			-1.083	-.456	-1.191	-.243	-1.245	.185
.150			-1.053	-.672	-1.130	-.523	-1.062	-.008
.250	-.588		-.861	-1.240	-.926	-.829	-.874	-.235
.400	-.607		-.725	-1.789	-.748	-1.113	-.701	-.379
.550	-.495	-3.525	-.557	-1.994	-.561	-1.048	-.502	-.401
.700	-.405	-3.268	-.447	-1.807	-.425	-.943	-.346	-.359
.850	-.406	-2.668	-.354	-1.216	-.318	-.677	-.235	-.262
.950	-.507	-1.524	-.403	-.659	-.271	-.417	-.160	-.180

ALPHA = 12.00 DEG Q = 907 N/SQ.M. (18.94 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.274		-1.219		-3.417	
.010			-.254	1.020				
.015					-3.577	.883		
.025			-3.071	.582	-2.917	.641	-2.941	.871
.050			-1.806	.241	-2.002	.328	-1.988	.624
.100			-1.238	-.301	-1.384	-.026	-1.450	.332
.150			-1.151	-.665	-1.184	-.350	-1.215	.076
.250	-.593		-.930	-1.215	-1.022	-.707	-1.001	-.151
.400	-.623		-.765	-1.818	-.809	-1.038	-.762	-.325
.550	-.502	-3.352	-.589	-1.973	-.589	-1.046	-.546	-.361
.700	-.399	-3.005	-.462	-1.631	-.447	-.926	-.370	-.328
.850	-.376	-2.455	-.397	-1.111	-.313	-.671	-.247	-.251
.950	-.461	-1.412	-.356	-.637	-.268	-.426	-.170	-.179

ALPHA = 13.98 DEG Q = 908 N/SQ.M. (18.96 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.372		-2.492		-5.145	
.010			-.214	1.000				
.015					-4.602	1.000		
.025			-3.656	.800	-3.913	.819	-3.333	.977
.050			-2.166	.460	-2.377	.507	-2.320	.792
.100			-1.490	-.054	-1.730	.108	-1.667	.446
.150			-1.256	-.490	-1.414	-.215	-1.501	.229
.250	-.643		-1.028	-1.146	-1.112	-.626	-1.099	-.058
.400	-.654		-.809	-1.745	-.863	-.946	-.813	-.266
.550	-.514	-3.003	-.603	-1.910	-.636	-.986	-.577	-.297
.700	-.403	-2.904	-.464	-1.567	-.467	-.887	-.381	-.294
.850	-.352	-2.099	-.356	-1.082	-.331	-.679	-.251	-.274
.950	-.424	-1.112	-.385	-.606	-.276	-.420	-.175	-.191



TABLE 10 (C) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.01 DEG      Q = 911 N/SQ.M. (19.03 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.857		-2.892		-1.620	
.010			-.261	.930				
.015					-5.213	0.000		
.025			-2.485	.866	-3.526	.857	-1.496	.904
.050			-2.383	.533	-2.267	.566	-1.622	.672
.100			-1.606	.018	-1.707	.170	-1.420	.404
.150			-1.477	-.401	-1.449	-.157	-1.400	.182
.250	-.646		-1.042	-1.062	-1.143	-.584	-1.423	-.054
.400	-.653		-.756	-1.727	-.963	-.956	-1.130	-.257
.550	-.510	-2.972	-.556	-1.882	-.683	-1.003	-.937	-.344
.700	-.404	-2.640	-.463	-1.583	-.508	-.904	-.626	-.326
.850	-.352	-2.066	-.450	-1.068	-.424	-.744	-.429	-.310
.950	-.410	-1.029	-.390	-.626	-.387	-.525	-.403	-.341

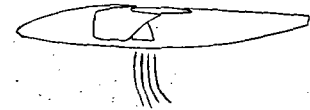
ALPHA = 17.99 DEG      Q = 915 N/SQ.M. (19.11 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.181		-.663		-1.219	
.010			-.156	.994				
.015					-1.328	.960		
.025			-1.405	.823	-1.157	.792	-1.059	.898
.050			-1.547	.517	-1.533	.503	-1.140	.689
.100			-1.336	.066	-1.359	.136	-1.164	.426
.150			-1.516	-.393	-1.054	-.141	-1.185	.221
.250	-.763		-1.268	-1.012	-1.216	-.586	-1.206	-.038
.400	-.759		-.970	-1.718	-1.142	-.927	-1.160	-.249
.550	-.586	-2.860	-.908	-1.917	-.899	-1.023	-1.042	-.346
.700	-.515	-2.644	-.633	-1.573	-.791	-.917	-1.008	-.379
.850	-.414	-2.063	-.554	-1.117	-.697	-.808	-.835	-.384
.950	-.436	-1.048	-.517	-.628	-.580	-.612	-.739	-.430

ALPHA = 20.02 DEG      Q = 909 N/SQ.M. (18.99 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.300		-.086		-1.179	
.010			-.156	1.007				
.015					-.846	.950		
.025			-.787	.824	-.780	.768	-1.040	.917
.050			-.768	.551	-.768	.538	-.995	.737
.100			-.858	.099	-.903	.181	-.969	.444
.150			-1.003	-.296	-.724	-.151	-.943	.253
.250	-.882		-.867	-1.001	-.867	-.508	-1.049	.002
.400	-.874		-1.003	-1.617	-1.001	-.915	-1.134	-.250
.550	-.918	-2.877	-.985	-1.833	-.990	-1.039	-1.169	-.368
.700	-.877	-2.763	-.917	-1.637	-.874	-.981	-1.054	-.431
.850	-.678	-2.279	-.829	-1.253	-.756	-.840	-.986	-.522
.950	-.583	-1.254	-.659	-.759	-.665	-.723	-.808	-.572

TABLE 10 (D) -  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -.01 DEG. Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.376		-2.095		.234	
.010			-3.213	-3.741				
.015					.860	-3.649		
.025			.572	-3.115	.706	-2.693	.473	-1.567
.050			.291	-2.102	.403	-2.144	.234	-1.454
.100			.079	-1.961	.164	-1.898	.108	-1.159
.150			-.068	-2.024	.016	-1.806	.016	-1.138
.250	-.181		-.181	-1.890	-.132	-1.723	-.153	-1.007
.400	-.297		-.267	-2.105	-.243	-1.549	-.219	-.901
.550	-.280	-3.114	-.253	-2.193	-.215	-1.368	-.185	-.744
.700	-.263	-3.881	-.253	-1.890	-.212	-1.082	-.130	-.522
.850	-.369	-3.435	-.311	-1.481	-.198	-.734	-.086	-.311
.950	-.679	-2.585	-.458	-.901	-.256	-.437	-.052	-.161

ALPHA = 4.02 DEG. Q = 225 N/SQ.M. ( 4.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.310		-.363			
.010			-2.901	-1.891				
.015					.534	-2.018		
.025			.170	-1.702	.205	-1.990	.072	-.994
.050			-.069	-1.639	-.005	-1.520	-.013	-.875
.100			-.057	-1.534	-.062	-1.394	-.132	-.798
.150			-.237	-1.793	-.167	-1.576	-.195	-.791
.250	-.209		-.272	-1.948	-.251	-1.533	-.272	-.864
.400	-.282		-.303	-2.162	-.316	-1.560	-.289	-.785
.550	-.235	-4.727	-.259	-2.515	-.255	-1.421	-.204	-.626
.700	-.225	-5.305	-.232	-2.454	-.215	-1.183	-.133	-.514
.850	-.276	-3.919	-.272	-1.784	-.181	-.721	-.075	-.282
.950	-.544	-2.447	-.344	-.911	-.201	-.418	-.048	-.109

ALPHA = 8.00 DEG. Q = 223 N/SQ.M. ( 4.65 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.412		-.879			
.010			-2.650	-.621				
.015					-.041	-1.285		
.025			-.255	-1.243	-.295	-1.314	-.621	-.338
.050			-.288	-.988	-.309	-.974	-.430	-.422
.100			-.255	-1.292	-.323	-1.137	-.323	-.458
.150			-.373	-1.441	-.352	-1.285	-.394	-.571
.250	-.224		-.380	-1.686	-.359	-1.460	-.415	-.675
.400	-.298		-.329	-2.334	-.366	-1.566	-.346	-.692
.550	-.229	-6.044	-.264	-2.811	-.298	-1.433	-.240	-.596
.700	-.188	-6.232	-.233	-2.440	-.229	-1.186	-.171	-.445
.850	-.243	-4.230	-.243	-1.583	-.181	-.723	-.041	-.284
.950	-.430	-2.355	-.315	-.912	-.181	-.366	-.003	-.054

TABLE 10 (D) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.01 DEG      Q = 222 N/SQ.M. ( 4.65 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.913				.963	
.010			-2.304	-.291				
.015					-.539	-.617		
.025			-.681	-.681	-.504	-.646	-.738	.084
.050			-.532	-.596	-.547	-.773	-.617	-.079
.100			-.447	-.844	-.412	-.901	-.454	-.306
.150			-.433	-1.255	-.454	-1.156	-.461	-.426
.250	-.242		-.405	-1.557	-.412	-1.286	-.447	-.541
.400	-.286		-.365	-2.230	-.389	-1.464	-.362	-.606
.550	-.214	-5.747	-.286	-2.745	-.266	-1.358	-.252	-.534
.700	-.166	-6.265	-.225	-2.498	-.204	-1.190	-.115	-.389
.850	-.183	-3.570	-.225	-1.557	-.125	-.699	-.012	-.256
.950	-.451	-2.048	-.321	-.791	-.139	-.345	.016	-.070

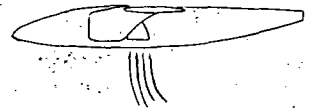
ALPHA = 11.99 DEG      Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							.721	
.010			-1.903	.327				
.015					-.925	-.039		
.025			-.967	-.201	-.911	-.391	-1.171	.383
.050			-.886	-.405	-.693	-.489	-.862	.186
.100			-.503	-.728	-.566	-.721	-.616	-.074
.150			-.517	-1.066	-.503	-.897	-.573	-.250
.250	-.222		-.412	-1.476	-.440	-1.179	-.503	-.395
.400	-.258		-.371	-2.117	-.395	-1.370	-.371	-.494
.550	-.190	-5.534	-.248	-2.789	-.279	-1.302	-.211	-.426
.700	-.143	-6.250	-.166	-2.448	-.163	-1.067	-.088	-.330
.850	-.160	-3.972	-.173	-1.486	-.098	-.623	.004	-.200
.950	-.340	-1.756	-.238	-.719	-.102	-.303	.055	-.085

ALPHA = 14.02 DEG      Q = 224 N/SQ.M. ( 4.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							-.125	
.010			-1.550	.809				
.015					-1.417	.297		
.025			-1.269	.156	-1.438	-.090	-1.543	.648
.050			-.862	-.195	-1.017	-.272	-1.305	.360
.100			-.658	-.658	-.708	-.518	-.757	.142
.150			-.602	-.722	-.672	-.806	-.672	-.118
.250	-.237		-.462	-1.467	-.525	-1.082	-.560	-.286
.400	-.272		-.405	-2.287	-.442	-1.348	-.415	-.415
.550	-.190	-5.620	-.241	-2.832	-.303	-1.273	-.241	-.422
.700	-.122	-6.131	-.177	-2.505	-.163	-1.069	-.105	-.275
.850	-.146	-4.112	-.180	-1.498	-.088	-.643	.007	-.163
.950	-.337	-1.494	-.221	-.752	-.088	-.292	.058	-.092

TABLE 10 (D) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 15.98 DEG

Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010			-1.237	1.127			-1.068	
.015					-2.039	.642		
.025			-1.722	.388	-1.772	.276	-1.997	.888
.050			-1.155	.079	-1.251	.008	-1.736	.578
.100			-.787	-.386	-.920	-.259	-.977	.255
.150			-.660	-.751	-.780	-.561	-.815	-.020
.250	-.252		-.540	-1.289	-.597	-1.040	-.667	-.221
.400	-.276		-.416	-2.329	-.501	-1.268	-.467	-.334
.550	-.143	-6.752	-.255	-2.789	-.310	-1.210	-.255	-.327
.700	-.092	-6.329	-.180	-2.479	-.180	-.982	-.112	-.235
.850	-.068	-3.004	-.153	-1.493	-.095	-.644	-.010	-.112
.950	-.286	-1.575	-.225	-.736	-.078	-.269	.048	-.064

ALPHA = 18.00 DEG

Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.990		.515		-1.954	
.010			-.914	1.192				
.015					-2.358	.899		
.025			-1.940	.487	-2.142	.634	-2.749	
.050			-1.466	.299	-1.723	.160	-1.556	.746
.100			-.866	-.156	-.963	-.140	-1.068	.390
.150			-.789	-.656	-.859	-.503	-.900	.139
.250	-.266		-.587	-1.242	-.649	-.833	-.726	-.076
.400	-.292		-.454	-2.219	-.512	-1.215	-.468	-.268
.550	-.174	-7.131	-.262	-2.865	-.309	-1.174	-.275	-.285
.700	-.089	-6.543	-.157	-2.469	-.164	-.985	-.116	-.191
.850	-.052	-2.587	-.137	-1.249	-.086	-.620	-.005	-.062
.950	-.258	-.992	-.201	-.556	-.059	-.245	.063	-.022

ALPHA = 19.99 DEG

Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.726		-.356		-3.367	
.010			-.668					
.015					-2.923	1.018		
.025			-2.535	.844	-2.715	.712	-3.576	
.050			-1.550	.532	-1.730	.532	-1.758	.851
.100			-1.008	-.037	-1.175	.081	-1.217	.546
.150			-.870	-.550	-1.064	-.308	-.932	.254
.250	-.273		-.613	-1.116	-.738	-.746	-.724	.027
.400	-.276		-.447	-2.192	-.531	-1.123	-.545	-.141
.550	-.161	-6.773	-.272	-2.717	-.313	-1.099	-.316	-.205
.700	-.064	-6.840	-.161	-2.206	-.168	-.988	-.141	-.138
.850	-.050	-2.418	-.121	-1.210	-.084	-.625	-.033	-.040
.950	-.205	-1.056	-.161	-.605	-.057	-.222	.027	.010

TABLE 11 (A)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.02 DEG      Q = 2844 N/SQ.M. (59.39 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.943		.930		.911	
.010			.837	.181				
.015					-.641	.117		
.025			-.833	-.060	-.796	.012	-.569	.018
.050			-.575	-.081	-.633	.087	-.458	-.036
.100			-.531	-.164	-.477	-.061	-.431	-.099
.150			-.544	-.304	-.531	-.171	-.416	-.178
.250	-.394		-.518	-.319	-.521	-.235	-.493	-.268
.400	-.475		-.534	-.307	-.522	-.237	-.437	-.252
.550	-.413	-.392	-.432	-.235	-.424	-.104	-.332	-.201
.700	-.357	-.373	-.343	-.097	-.340	.140	-.191	-.131
.850	-.344	-.353	-.308	.232	-.272	.434	-.094	-.041
.950	-.369	-.246	-.254	.407	-.259	.589	-.023	.026

ALPHA = 4.00 DEG      Q = 2849 N/SQ.M. (59.51 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.770		.090		-.396	
.010			.819	.925				
.015					-2.203	.813		
.025			-1.649	.587	-1.901	.607	-1.490	.610
.050			-1.149	.431	-1.282	.409	-1.304	.361
.100			-.813	.216	-.962	.227	-.851	.230
.150			-.815	.022	-.892	.063	-.754	.053
.250	-.510		-.718	-.154	-.783	.000	-.695	-.064
.400	-.564		-.631	-.204	-.662	-.080	-.551	-.121
.550	-.474	-.332	-.506	-.158	-.505	.007	-.401	-.118
.700	-.409	-.339	-.403	-.013	-.402	.200	-.253	-.076
.850	-.365	-.303	-.331	.297	-.313	.462	-.141	-.040
.950	-.365	-.125	-.257	.458	-.272	.605	-.051	-.003

ALPHA = 7.98 DEG      Q = 2842 N/SQ.M. (59.37 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.735		-2.647		-3.110	
.010			.653	.923				
.015					-4.567	.979		
.025			-2.740	.898	-2.894	.916	-2.685	.893
.050			-1.829	.743	-1.990	.738	-1.740	.709
.100			-1.255	.511	-1.431	.518	-1.270	.445
.150			-1.081	.315	-1.219	.366	-1.047	.320
.250	-.616		-.859	.070	-.974	.151	-.887	.111
.400	-.632		-.746	-.109	-.785	.043	-.677	-.008
.550	-.531	-.270	-.577	-.088	-.583	.091	-.473	-.047
.700	-.438	-.226	-.449	.047	-.447	.237	-.302	-.035
.850	-.377	-.209	-.349	.323	-.335	.502	-.164	-.029
.950	-.351	-.037	-.264	.483	-.281	.637	-.067	-.018

TABLE 11 (A) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 9.99 DEG

Q = 2840 N/SQ.M. (59.32 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.106		-.505		-1.241	
.010			.636	.957				
.015					-1.261	.972		
.025			-1.457	.941	-1.335	.884	-1.589	.859
.050			-1.317	.773	-1.298	.722	-1.579	.679
.100			-1.345	.536	-1.200	.526	-1.611	.460
.150			-1.189	.375	-1.506	.370	-1.489	.310
.250	-.744		-1.377	.124	-1.387	.189	-1.421	.136
.400	-.797		-.953	-.094	-1.079	.078	-.989	.011
.550	-.603	-.243	-.622	-.075	-.970	.103	-.633	-.036
.700	-.462	-.228	-.587	.062	-.676	.247	-.449	-.040
.850	-.365	-.120	-.449	.337	-.516	.513	-.411	-.060
.950	-.302	.056	-.388	.491	-.416	.638	-.176	-.075

ALPHA = 12.01 DEG

Q = 2847 N/SQ.M. (59.47 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.223		-.248		-1.127	
.010			.612	.959				
.015					-.844	.969		
.025			-.757	.933	-.842	.891	-1.219	.857
.050			-.775	.780	-.741	.731	-1.172	.713
.100			-.882	.584	-.853	.559	-1.126	.488
.150			-.774	.406	-.822	.387	-1.221	.330
.250	-.823		-.876	.126	-1.031	.201	-1.269	.187
.400	-.860		-.869	-.094	-1.022	.085	-1.183	.029
.550	-.879	-.263	-.906	-.057	-.914	.127	-1.031	-.029
.700	-.799	-.226	-.886	.046	-.901	.245	-.820	-.041
.850	-.686	-.132	-.740	.332	-.770	.514	-.606	-.096
.950	-.499	.045	-.673	.484	-.667	.644	-.403	-.159

ALPHA = 13.98 DEG

Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.158		-.233		-1.223	
.010			.577	.938				
.015					-.708	.975		
.025			-.688	.952	-.696	.910	-1.061	.878
.050			-.687	.829	-.700	.762	-.918	.724
.100			-.709	.628	-.657	.581	-.987	.510
.150			-.697	.418	-.693	.426	-.958	.363
.250	-.672		-.732	.140	-.704	.235	-1.083	.189
.400	-.759		-.779	-.107	-.801	.110	-1.183	.034
.550	-.788	-.257	-.742	-.057	-.770	.125	-1.070	-.034
.700	-.777	-.238	-.774	.056	-.730	.235	-.926	-.065
.850	-.714	-.131	-.718	.326	-.724	.513	-.678	-.141
.950	-.585	.037	-.727	.479	-.726	.645	-.552	-.238

TABLE 11 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 15.98 DEG      Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.019		-.412		-.869	
.010			.539	.858				
.015					-.670	.985		
.025			-.705	.980	-.685	.946	-.756	.873
.050			-.685	.860	-.677	.813	-.768	.742
.100			-.667	.657	-.666	.616	-.768	.535
.150			-.672	.501	-.673	.451	-.735	.392
.250	-.710		-.717	.166	-.722	.284	-.770	.218
.400	-.747		-.705	-.100	-.736	.140	-.789	.065
.550	-.775	-.266	-.729	-.107	-.713	.140	-.823	-.043
.700	-.726	-.240	-.711	.043	-.725	.263	-.857	-.105
.850	-.678	-.178	-.732	.311	-.704	.528	-.811	-.214
.950	-.627	.066	-.756	.469	-.758	.655	-.751	-.360

ALPHA = 17.99 DEG      Q = 2842 N/SQ.M. (59.36 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.166		-.514		-.869	
.010			.487	.789				
.015					-.666	.970		
.025			-.673	.983	-.687	.956	-.682	.900
.050			-.671	.893	-.679	.851	-.693	.792
.100			-.683	.721	-.675	.679	-.684	.587
.150			-.695	.541	-.680	.523	-.680	.440
.250	-.708		-.701	.232	-.691	.312	-.739	.251
.400	-.731		-.710	-.063	-.735	.180	-.707	.085
.550	-.730	-.255	-.711	-.064	-.733	.174	-.743	-.016
.700	-.730	-.228	-.741	.053	-.722	.264	-.770	-.090
.850	-.710	-.116	-.738	.311	-.746	.529	-.729	-.227
.950	-.675	.074	-.747	.466	-.769	.649	-.709	-.374

ALPHA = 19.98 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.378		-.596		-.900	
.010			.416	.701				
.015					-.673	.958		
.025			-.666	.983	-.668	.979	-.679	.919
.050			-.693	.938	-.665	.896	-.679	.819
.100			-.677	.778	-.670	.734	-.690	.635
.150			-.705	.598	-.697	.582	-.670	.503
.250	-.725		-.695	.297	-.698	.393	-.696	.306
.400	-.753		-.723	.026	-.721	.220	-.707	.143
.550	-.741	-.232	-.731	-.047	-.732	.217	-.757	.011
.700	-.731	-.263	-.730	.068	-.751	.301	-.755	-.082
.850	-.706	-.103	-.750	.318	-.764	.543	-.723	-.210
.950	-.703	.073	-.775	.467	-.763	.665	-.697	-.378

TABLE - 11 (B)

## PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.02 DEG

Q = 2038 N/SC.M. (42.57 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.855		.955		.848	
.010			.717	-.181				
.015					-.717	-.191		
.025			-.812	-.443	-1.012	-.386	-.684	-.100
.050			-.672	-.534	-.541	-.414	-.787	-.148
.100			-.589	-.725	-.610	-.464	-.544	-.257
.150			-.635	-.918	-.581	-.567	-.520	-.367
.250	-.458		-.581	-1.065	-.563	-.811	-.528	-.367
.400	-.546		-.614	-1.282	-.611	-.775	-.493	-.434
.550	-.519	-1.978	-.530	-1.229	-.528	-.605	-.393	-.376
.700	-.466	-1.966	-.468	-.861	-.462	-.288	-.278	-.285
.850	-.471	-1.559	-.463	-.367	-.430	.149	-.194	-.196
.950	-.537	-.955	-.452	-.037	-.476	.368	-.119	-.097

ALPHA = 3.96 DEG

Q = 2042 N/SC.M. (42.64 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.857		.331		-.457	
.010			.708	.754				
.015					-2.055	.687		
.025			-1.751	.304	-1.741	.457	-1.740	.469
.050			-1.190	.034	-1.348	.112	-1.264	.248
.100			-.963	-.294	-1.035	-.128	-.962	.061
.150			-.948	-.540	-.935	-.334	-.870	-.068
.250	-.572		-.855	-.870	-.833	-.547	-.755	-.245
.400	-.646		-.745	-1.169	-.766	-.646	-.641	-.301
.550	-.571	-1.764	-.617	-1.107	-.625	-.516	-.489	-.298
.700	-.523	-1.757	-.529	-.775	-.542	-.227	-.346	-.239
.850	-.493	-1.325	-.508	-.231	-.490	.191	-.230	-.190
.950	-.520	-.717	-.476	.032	-.496	.403	-.144	-.122

ALPHA = 8.01 DEG

Q = 2039 N/SC.M. (42.59 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.037		-1.637		-3.574	
.010			.660	1.012				
.015					-4.371	.938		
.025			-3.244	.752	-3.561	.817	-2.889	.872
.050			-1.964	.524	-2.133	.568	-1.901	.647
.100			-1.383	.113	-1.557	.259	-1.411	.327
.150			-1.234	-.214	-1.334	.007	-1.175	.166
.250	-.684		-1.033	-.636	-1.102	-.304	-1.036	-.040
.400	-.740		-.861	-1.036	-.917	-.495	-.790	-.184
.550	-.640	-1.677	-.690	-1.043	-.713	-.429	-.569	-.225
.700	-.551	-1.662	-.576	-.708	-.591	-.179	-.412	-.194
.850	-.513	-1.200	-.526	-.191	-.521	.206	-.268	-.179
.950	-.518	-.568	-.490	.069	-.510	.432	-.165	-.134



TABLE 11 (B) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.00 DEG      Q = 2039 N/SQ.M. (42.60 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.508		-3.320		-5.230	
.010			.532	.902				
.015					-5.422	.997		
.025			-3.865	.943	-3.753	.950	-3.447	.958
.050			-2.355	.685	-2.653	.720	-2.263	.791
.100			-1.637	.294	-1.862	.387	-1.630	.489
.150			-1.403	-.040	-1.529	.122	-1.379	.272
.250	-.760		-1.105	-.493	-1.227	-.171	-1.129	.047
.400	-.788		-.927	-.982	-.974	-.402	-.850	-.122
.550	-.672	-1.620	-.738	-1.001	-.756	-.390	-.613	-.177
.700	-.571	-1.618	-.603	-.674	-.614	-.179	-.420	-.171
.850	-.506	-1.239	-.536	-.177	-.528	.225	-.274	-.169
.950	-.523	-.539	-.500	.075	-.521	.449	-.183	-.150

ALPHA = 11.99 DEG      Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.173		-.830		-1.955	
.010			.503	.962				
.015					-1.574	1.003		
.025			-1.778	.947	-1.395	.885	-1.756	.919
.050			-1.323	.715	-1.583	.667	-1.759	.732
.100			-1.614	.369	-1.422	.385	-1.837	.485
.150			-1.744	.043	-1.537	.139	-1.694	.296
.250	-1.021		-1.592	-.475	-1.527	-.160	-1.666	.091
.400	-1.012		-1.412	-.936	-1.426	-.364	-1.433	-.104
.550	-.796	-1.628	-1.160	-.941	-1.215	-.331	-1.088	-.166
.700	-.668	-1.585	-.866	-.627	-.887	-.117	-.716	-.177
.850	-.533	-1.075	-.663	-.134	-.793	.270	-.505	-.193
.950	-.487	-.501	-.740	.099	-.703	.460	-.346	-.198

ALPHA = 14.05 DEG      Q = 2037 N/SQ.M. (42.55 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.029		-.523		-1.952	
.010			.478	.966				
.015					-1.136	1.005		
.025			-1.099	.959	-1.056	.904	-1.375	.932
.050			-.985	.744	-1.116	.709	-1.529	.775
.100			-1.147	.400	-1.183	.433	-1.540	.529
.150			-1.060	.062	-1.095	.187	-1.569	.342
.250	-1.056		-1.088	-.428	-1.223	-.105	-1.470	.125
.400	-1.024		-1.305	-.914	-1.244	-.357	-1.547	-.078
.550	-1.033	-1.531	-1.179	-.931	-1.243	-.312	-1.328	-.158
.700	-.982	-1.806	-1.099	-.626	-1.116	-.128	-1.098	-.195
.850	-.829	-1.035	-.961	-.135	-.925	.278	-.719	-.242
.950	-.641	-.490	-.830	.104	-.846	.487	-.659	-.281

TABLE 11 (B) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 15.99 DEG

Q = 2045 N/SQ.M. (42.72 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.036		-.490		-1.519	
.010			.454	.970				
.015					-.910			
.025			-.937	.976	-.934	.925	-1.229	.938
.050			-.890	.788	-.897	.751	-1.289	.788
.100			-.873	.443	-.915	.484	-1.319	.556
.150			-.910	.174	-.902	.220	-1.226	.350
.250	-.882		-.857	-.380	-.925	-.061	-1.244	.134
.400	-.947		-.947	-.890	-.971	-.332	-1.278	-.066
.550	-.997	-1.514	-.984	-.894	-.984	-.305	-1.238	-.176
.700	-1.012	-1.536	-1.019	-.604	-1.000	-.111	-1.146	-.229
.850	-.865	-1.036	-.966	-.127	-.899	.274	-1.026	-.343
.950	-.747	-.458	-.946	.111	-.943	.488	-.834	-.391

ALPHA = 17.96 DEG

Q = 2037 N/SQ.M. (42.55 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .301

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.215		-.617		-1.303	
.010			.318	.875				
.015					-.921			
.025			-.909	.989	-.896	.969	-1.007	.943
.050			-.878	.868	-.875	.804	-1.040	.804
.100			-.870	.529	-.863	.526	-1.089	.583
.150			-.883	.184	-.891	.290	-1.069	.372
.250	-.906		-.907	-.352	-.871	-.029	-1.055	.161
.400	-.934		-.906	-.860	-.933	-.307	-1.027	-.060
.550	-.948	-1.553	-.947	-.947	-.928	-.311	-1.111	-.187
.700	-.921	-1.508	-.935	-.634	-.919	-.127	-1.122	-.265
.850	-.920	-1.084	-.954	-.158	-.949	.266	-1.065	-.384
.950	-.818	-.493	-.966	.113	-.971	.491	-.970	-.543

ALPHA = 19.98 DEG

Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .301

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.361		-.766		-1.252	
.010			.231	.815				
.015					-.842			
.025			-.875	1.010	-.866	.983	-.914	.953
.050			-.876	.899	-.870	.832	-.931	.828
.100			-.874	.588	-.849	.586	-.902	.609
.150			-.890	.260	-.878	.345	-.974	.432
.250	-.860		-.857	-.336	-.891	.007	-.934	.190
.400	-.944		-.941	-.891	-.925	-.284	-.964	-.030
.550	-.944	-1.521	-.948	-.967	-.929	-.303	-1.047	-.165
.700	-.948	-1.546	-.955	-.666	-.946	-.136	-1.004	-.253
.850	-.929	-1.053	-.941	-.177	-.908	.267	-.991	-.406
.950	-.869	-.509	-.956	.098	-.944	.484	-.909	-.594

TABLE 11 (C) -  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.02 DEG      Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.273		.656		1.027	
.010			-.550	-1.053				
.015					.006	-1.036		
.025			-.303	-1.239	-.306	-1.130	-.309	-.542
.050			-.348	-1.069	-.297	-.847	-.287	-.446
.100			-.351	-1.204	-.372	-.941	-.325	-.386
.150			-.504	-1.345	-.434	-1.000	-.355	-.576
.250	-.401		-.479	-1.555	-.533	-1.186	-.464	-.613
.400	-.515		-.549	-1.877	-.522	-1.151	-.439	-.597
.550	-.464	-4.379	-.478	-1.977	-.468	-.934	-.350	-.516
.700	-.440	-3.591	-.443	-1.385	-.445	-.502	-.277	-.364
.850	-.457	-1.883	-.459	-.659	-.449	-.018	-.132	-.212
.950	-.540	-.917	-.480	-.299	-.520	.229	-.095	-.090

ALPHA = 3.90 DEG      Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.896		.960		.399	
.010			-.451	.191				
.015					-1.120	-.033		
.025			-1.080	-.465	-1.261	-.310	-1.329	.331
.050			-.883	-.544	-.933	-.394	-.931	-.018
.100			-.771	-.771	-.750	-.498	-.769	-.258
.150			-.757	-1.140	-.776	-.747	-.722	-.332
.250	-.519		-.760	-1.357	-.741	-.938	-.695	-.431
.400	-.614		-.681	-1.831	-.702	-1.068	-.579	-.468
.550	-.566	-4.074	-.570	-1.857	-.569	-.872	-.465	-.426
.700	-.497	-3.332	-.526	-1.335	-.500	-.487	-.333	-.344
.850	-.493	-1.819	-.517	-.587	-.488	-.012	-.228	-.258
.950	-.546	-.776	-.524	-.259	-.550	.229	-.148	-.141

ALPHA = 8.02 DEG      Q = 904 N/SQ.M. (18.87 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.808		.222		-1.196	
.010			-.388	.830				
.015					-2.636	.646		
.025			-2.080	.314	-2.251	.374	-2.563	.660
.050			-1.541	-.087	-1.666	.182	-1.693	.429
.100			-1.140	-.411	-1.241	-.254	-1.231	.112
.150			-1.044	-.758	-1.143	-.467	-1.067	-.061
.250	-.624		-.904	-1.162	-.969	-.741	-.939	-.207
.400	-.699		-.809	-1.744	-.842	-.893	-.748	-.359
.550	-.603	-3.901	-.649	-1.827	-.679	-.747	-.537	-.370
.700	-.530	-3.008	-.576	-1.237	-.577	-.424	-.399	-.309
.850	-.512	-1.324	-.544	-.508	-.529	.029	-.278	-.252
.950	-.527	-.512	-.532	-.202	-.562	.276	-.195	-.179

TABLE 11 (C) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 9.97 DEG      Q = 913 N/SC.M. (19.06 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.064		-.910		-3.294	
.010			-1.146	.705				
.015					-3.639	.561		
.025			-3.166	.223	-3.270	.285	-3.368	.542
.050			-2.025	-.086	-2.372	.018	-2.210	.299
.100			-1.640	-.540	-1.830	-.367	-1.709	-.053
.150			-1.476	-.840	-1.562	-.606	-1.490	-.221
.250	-.968		-1.301	-1.313	-1.370	-.887	-1.334	-.442
.400	-1.026		-1.166	-1.987	-1.197	-1.087	-1.092	-.596
.550	-.922	-4.188	-.989	-2.002	-1.019	-1.004	-.869	-.620
.700	-.825	-3.282	-.889	-1.464	-.891	-.717	-.712	-.574
.850	-.791	-1.530	-.839	-.771	-.823	-.245	-.586	-.532
.950	-.795	-.729	-.830	-.459	-.841	-.007	-.499	-.472

ALPHA = 11.97 DEG      Q = 912 N/SC.M. (19.04 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.740		-2.041		-5.236	
.010			-1.127	.706				
.015					-4.557	.671		
.025			-3.999	.447	-4.317	.507	-3.655	.613
.050			-2.330	.103	-2.669	.106	-2.574	.419
.100			-1.762	-.379	-1.974	-.182	-1.952	.132
.150			-1.630	-.747	-1.801	-.509	-1.715	-.110
.250	-1.020		-1.387	-1.256	-1.475	-.788	-1.426	-.354
.400	-1.053		-1.157	-1.907	-1.248	-1.036	-1.139	-.522
.550	-.933	-4.238	-1.017	-1.956	-1.044	-.947	-.931	-.569
.700	-.852	-3.140	-.856	-1.442	-.904	-.729	-.744	-.556
.850	-.795	-1.347	-.841	-.723	-.832	-.232	-.608	-.532
.950	-.778	-.686	-.823	-.455	-.849	-.002	-.516	-.482

ALPHA = 13.97 DEG      Q = 910 N/SC.M. (19.00 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.566		-3.051		-2.225	
.010			-1.166	.557				
.015					-5.718	.703		
.025			-3.926	.582	-4.148	.550	-2.257	.604
.050			-2.852	.273	-2.928	.299	-2.243	.440
.100			-2.018	-.168	-2.312	-.071	-2.288	.166
.150			-2.033	-.573	-2.028	-.369	-2.243	-.085
.250	-1.093		-1.507	-1.154	-1.607	-.714	-1.682	-.309
.400	-1.153		-1.271	-1.832	-1.358	-.953	-1.625	-.497
.550	-.972	-4.208	-1.070	-1.894	-1.110	-.897	-1.263	-.554
.700	-.869	-3.130	-.955	-1.351	-1.038	-.693	-.872	-.558
.850	-.804	-1.209	-.882	-.685	-.910	-.201	-.781	-.554
.950	-.771	-.563	-.836	-.416	-.970	.003	-.633	-.574

TABLE 11 (C) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 15.99 DEG      Q = 911 N/SQ.M. (19.04 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.310		-.953		-2.124	
.010			-1.062	.670				
.015					-2.146	.665		
.025			-2.158	.549	-1.589	.502	-1.745	.604
.050			-1.987	.281	-1.883	.253	-1.838	.416
.100			-1.747	-.137	-1.700	-.079	-1.876	.160
.150			-1.805	-.523	-1.958	-.360	-1.866	-.039
.250	-1.325		-1.828	-1.109	-1.742	-.710	-1.925	-.266
.400	-1.378		-1.556	-1.762	-1.644	-.941	-1.911	-.473
.550	-1.102	-4.015	-1.437	-1.834	-1.486	-.871	-1.556	-.551
.700	-1.015	-2.935	-1.246	-1.328	-1.279	-.662	-1.412	-.550
.850	-.876	-1.114	-1.010	-.664	-1.080	-.185	-1.023	-.596
.950	-.763	-.547	-.944	-.367	-1.112	.050	-.981	-.596

ALPHA = 18.03 DEG      Q = 911 N/SQ.M. (19.03 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.181		-.760		-1.890	
.010			-.982	.667				
.015					-1.412	.641		
.025			-1.350	.552	-1.455	.502	-1.718	.609
.050			-1.563	.295	-1.428	.262	-1.710	.442
.100			-1.308	-.115	-1.295	-.039	-1.602	.193
.150			-1.412	-.509	-1.338	-.331	-1.739	-.001
.250	-1.355		-1.390	-1.086	-1.423	-.657	-1.661	-.251
.400	-1.396		-1.469	-1.759	-1.598	-.911	-1.777	-.457
.550	-1.415	-3.886	-1.464	-1.831	-1.471	-.868	-1.819	-.555
.700	-1.248	-2.855	-1.403	-1.288	-1.404	-.666	-1.606	-.599
.850	-1.024	-1.107	-1.241	-.645	-1.251	-.197	-1.361	-.644
.950	-.925	-.583	-1.095	-.386	-1.179	.026	-1.100	-.698

ALPHA = 20.01 DEG      Q = 908 N/SQ.M. (18.95 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.362		-.845		-1.890	
.010			-.933	.598				
.015					-1.373	.673		
.025			-1.331	.565	-1.320	.544	-1.602	.619
.050			-1.324	.346	-1.336	.305	-1.487	.461
.100			-1.289	-.083	-1.287	.013	-1.511	.225
.150			-1.357	-.449	-1.305	-.268	-1.393	.016
.250	-1.334		-1.341	-1.061	-1.345	-.647	-1.503	-.234
.400	-1.420		-1.372	-1.741	-1.378	-.894	-1.662	-.451
.550	-1.449	-3.569	-1.348	-1.762	-1.377	-.863	-1.683	-.572
.700	-1.389	-2.807	-1.379	-1.252	-1.387	-.663	-1.592	-.626
.850	-1.220	-1.143	-1.348	-.676	-1.324	-.190	-1.515	-.744
.950	-1.098	-.576	-1.364	-.384	-1.349	.035	-1.340	-.862

TABLE 12 (D)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.01 DEG      Q = 230 N/SQ.M. ( 4.79 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.218		-1.497		.137	
.010			-4.834	-2.019				
.015					.645	-2.966		
.025			.199	-2.774	.363	-2.547	.171	-1.696
.050			.137	-2.232	.075	-2.087	-.021	-1.291
.100			-.220	-1.902	-.062	-1.641	-.110	-1.078
.150			-.213	-1.833	-.172	-1.765	-.186	-1.113
.250			-.364	-1.941	-.351	-1.655	-.323	-1.013
.400	-.351		-.447	-2.134	-.434	-1.512	-.377	-.923
.550	-.427	-4.870	-.430	-2.447	-.440	-1.262	-.347	-.803
.700	-.427	-4.573	-.434	-2.018	-.434	-.736	-.274	-.563
.850	-.493	-3.179	-.500	-1.282	-.480	-.320	-.227	-.404
.950	-.647	-1.468	-.550	-.883	-.587	-.034	-.197	-.277

ALPHA = 3.94 DEG      Q = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.292		.012		.940	
.010			-4.703	-1.615				
.015					.151	-1.878		
.025			-.161	-1.788	-.043	-1.802	-.251	-.985
.050			-.237	-1.470	-.244	-1.393	-.251	-.729
.100			-.375	-1.546	-.285	-1.421	-.306	-.763
.150			-.459	-1.656	-.368	-1.483	-.375	-.777
.250	-.403		-.465	-1.724	-.486	-1.496	-.445	-.891
.400	-.465		-.529	-2.375	-.509	-1.529	-.462	-.804
.550	-.445	-5.765	-.475	-2.764	-.455	-1.277	-.375	-.683
.700	-.408	-6.138	-.452	-2.160	-.445	-.734	-.297	-.562
.850	-.452	-2.932	-.485	-1.167	-.469	-.244	-.240	-.344
.950	-.690	-1.113	-.532	-.667	-.549	.055	-.176	-.200

ALPHA = 8.01 DEG      Q = 223 N/SQ.M. ( 4.65 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.666		.900		.794	
.010			-4.467	-.175				
.015					-.444	-.769		
.025			-.805	-.783	-.614	-.833	-.995	-.104
.050			-.670	-1.031	-.790	-.868	-.868	-.324
.100			-.649	-1.222	-.656	-1.052	-.691	-.437
.150			-.649	-1.427	-.677	-1.215	-.677	-.493
.250	-.436		-.628	-1.635	-.628	-1.305	-.677	-.675
.400	-.575		-.627	-2.444	-.644	-1.446	-.575	-.723
.550	-.503	-7.074	-.538	-2.738	-.558	-1.186	-.455	-.627
.700	-.452	-6.869	-.503	-2.032	-.497	-.726	-.370	-.490
.850	-.473	-2.269	-.500	-1.048	-.476	-.202	-.229	-.387
.950	-.531	-1.227	-.534	-.593	-.510	.120	-.181	-.215

TABLE 11 (D) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.01 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.857		.945		.278	
.010			-3.956	-.076				
.015					-1.083	-.273		
.025			-1.274	-.614	-1.077	-.457	-1.362	.067
.050			-.920	-.702	-.913	-.620	-1.049	-.076
.100			-.757	-1.056	-.791	-.927	-.832	-.348
.150			-.757	-1.165	-.804	-1.090	-.797	-.484
.250	-.546		-.729	-1.776	-.729	-1.328	-.729	-.585
.400	-.575		-.677	-2.433	-.687	-1.394	-.648	-.658
.550	-.499	-7.016	-.579	-2.802	-.608	-1.172	-.499	-.582
.700	-.450	-6.604	-.503	-2.182	-.516	-.783	-.351	-.473
.850	-.473	-1.997	-.503	-1.021	-.466	-.192	-.272	-.374
.950	-.542	-.908	-.536	-.569	-.513	.085	-.206	-.249

ALPHA = 12.02 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.959		.910		-.283	
.010			-3.800	.348				
.015					-1.427	.015		
.025			-1.532	-.179	-1.615	-.227	-1.733	.307
.050			-1.275	-.463	-1.219	-.345	-1.427	.119
.100			-1.011	-.831	-1.032	-.713	-1.032	-.165
.150			-.900	-1.101	-.879	-.949	-.900	-.394
.250	-.560		-.762	-1.449	-.852	-1.173	-.831	-.524
.400	-.608		-.679	-2.182	-.722	-1.321	-.689	-.625
.550	-.531	-8.483	-.558	-2.679	-.595	-1.139	-.514	-.564
.700	-.460	-6.825	-.457	-2.007	-.487	-.786	-.379	-.470
.850	-.457	-2.249	-.463	-1.015	-.447	-.178	-.278	-.373
.950	-.507	-.816	-.490	-.581	-.463	.115	-.208	-.299

ALPHA = 14.01 DEG      Q = 229 N/SQ.M. ( 4.79 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.886		.570		-1.157	
.010			-3.564	.707				
.015					-2.037	.384		
.025			-2.119	.054	-1.892	-.015	-2.140	.453
.050			-1.638	-.118	-1.549	-.139	-1.886	.219
.100			-1.060	-.661	-1.150	-.469	-1.177	-.043
.150			-.943	-.923	-1.060	-.847	-1.081	-.283
.250	-.586		-.847	-1.362	-.937	-1.059	-.930	-.442
.400	-.642		-.732	-2.339	-.782	-1.236	-.739	-.519
.550	-.529	-7.890	-.589	-2.539	-.612	-1.062	-.552	-.506
.700	-.476	-6.980	-.566	-1.976	-.522	-.799	-.416	-.442
.850	-.439	-2.069	-.476	-.932	-.462	-.166	-.309	-.352
.950	-.476	-.652	-.482	-.449	-.482	.098	-.229	-.319

TABLE 11 (D) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 16.01 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.384		-.032		-2.474	
.010			-3.604	.828				
.015					-2.952	.551		
.025			-2.552	.329	-2.640	.273	-2.980	.620
.050			-1.884	.024	-2.113	.003	-1.912	.391
.100			-1.274	-.469	-1.440	-.476	-1.523	.030
.150			-1.218	-.816	-1.315	-.774	-1.274	-.178
.250	-.698		-1.003	-1.479	-1.093	-1.073	-1.086	-.417
.400	-.740		-.878	-2.239	-.938	-1.254	-.878	-.548
.550	-.619	-7.747	-.709	-2.700	-.760	-1.137	-.652	-.575
.700	-.525	-6.933	-.602	-2.024	-.609	-.938	-.508	-.471
.850	-.521	-1.950	-.562	-1.032	-.568	-.249	-.400	-.397
.950	-.535	-7.760	-.528	-.609	-.541	.057	-.340	-.330

ALPHA = 18.01 DEG      Q = 231 N/SQ.M. ( 4.82 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.037		-.995		-4.266	
.010			-3.426					
.015					-3.399	.672		
.025			-3.454	.474	-3.378	.440	-3.898	.781
.050			-1.951	.166	-2.108	.187	-2.402	.487
.100			-1.473	-.305	-1.698	-.223	-1.678	.153
.150			-1.282	-.694	-1.411	-.551	-1.377	-.080
.250	-.735		-1.063	-1.213	-1.179	-.858	-1.166	-.213
.400	-.719		-.839	-2.199	-.915	-1.054	-.852	-.425
.550	-.590	-7.894	-.660	-2.557	-.716	-.971	-.647	-.504
.700	-.504	-5.265	-.551	-1.885	-.590	-.776	-.481	-.441
.850	-.445	-1.494	-.501	-.839	-.504	-.190	-.372	-.349
.950	-.448	-.564	-.504	-.461	-.491	.098	-.286	-.279

ALPHA = 20.06 DEG      Q = 229 N/SQ.M. ( 4.78 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.657		-2.136		-5.305	
.010			-3.168	.833				
.015					-4.699	.826		
.025			-4.051	.709	-4.417	.626	-3.693	.819
.050			-2.233	.378	-2.329	.275	-2.426	.530
.100			-1.578	-.097	-1.847	-.145	-1.819	.220
.150			-1.392	-.531	-1.558	-.449	-1.992	.034
.250	-.745		-1.117	-1.176	-1.255	-.826	-1.454	-.275
.400	-.729		-.903	-2.178	-.969	-1.050	-.943	-.462
.550	-.602	-8.206	-.696	-2.686	-.756	-1.009	-.699	-.492
.700	-.532	-6.469	-.565	-1.971	-.595	-.742	-.525	-.455
.850	-.485	-1.514	-.525	-.923	-.522	-.175	-.412	-.378
.950	-.492	-.555	-.495	-.529	-.499	.113	-.348	-.365



TABLE 12 (A)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = -0.00 DEG      Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.680		.932		.961	
.010			.515	.096				
.015					-.153	-.367		
.025			-.331	-.517	-.286	-.341	-.339	-.210
.050			-.376	-.352	-.412	-.270	-.280	-.051
.100			-.290	-.389	-.295	-.305	-.304	-.266
.150			-.359	-.447	-.356	-.340	-.331	-.279
.250	-.281		-.383	-.405	-.368	-.314	-.354	-.340
.400	-.343		-.367	-.330	-.376	-.334	-.329	-.315
.550	-.275	-.221	-.287	-.235	-.279	-.251	-.239	-.246
.700	-.204	-.126	-.183	-.177	-.175	-.158	-.133	-.161
.850	-.146	-.281	-.117	-.221	-.070	-.091	-.035	-.055
.950	-.107	-.088	-.063	-.110	-.008	-.008	.030	.043

ALPHA = 3.99 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.984		.639		.138	
.010			.493	.729				
.015					-1.381	.602		
.025			-1.244	.315	-1.358	.370	-1.077	.357
.050			-.812	.158	-.955	.259	-.879	.257
.100			-.603	.023	-.709	.130	-.625	.114
.150			-.617	-.104	-.652	-.005	-.584	-.046
.250	-.378		-.560	-.210	-.590	-.129	-.573	-.143
.400	-.430		-.475	-.198	-.497	-.170	-.450	-.194
.550	-.325	-.100	-.338	-.149	-.349	-.160	-.315	-.170
.700	-.233	-.086	-.234	-.148	-.224	-.120	-.176	-.109
.850	-.150	-.338	-.139	-.236	-.094	-.087	-.063	-.060
.950	-.088	-.150	-.066	-.139	-.009	-.018	.022	.032

ALPHA = 8.05 DEG      Q = 2846 N/SQ.M. (59.45 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.265		-1.021		-2.003	
.010			.428	.998				
.015					-2.922	.934		
.025			-2.488	.827	-3.074	.818	-2.561	.840
.050			-1.436	.592	-1.647	.605	-1.358	.609
.100			-1.085	.376	-1.132	.407	-1.066	.400
.150			-.915	.213	-1.005	.272	-.912	.229
.250	-.485		-.748	-.096	-.802	.103	-.748	.024
.400	-.492		-.590	-.058	-.627	-.032	-.569	-.063
.550	-.368	-.031	-.408	-.040	-.423	-.046	-.388	-.078
.700	-.258	-.071	-.272	-.082	-.267	-.046	-.232	-.058
.850	-.163	-.382	-.155	-.214	-.126	-.045	-.106	-.016
.950	-.100	-.250	-.077	-.136	-.034	.004	-.019	.018

TABLE 12 (A) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.00 DEG      Q = 2848 N/SC.M. (59.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.557		-2.371		-3.865	
.010			.314	.939				
.015					-4.468	.977		
.025			-2.836	.938	-2.753	.919	-2.781	.908
.050			-1.825	.726	-2.136	.758	-1.784	.736
.100			-1.203	.555	-1.395	.519	-1.275	.497
.150			-1.035	.374	-1.171	.369	-1.061	.306
.250	-.537		-.830	.154	-.902	.226	-.869	.121
.400	-.516		-.635	.006	-.680	.045	-.631	-.005
.550	-.383	-.000	-.432	.023	-.453	-.006	-.420	-.043
.700	-.269	-.055	-.282	-.047	-.278	-.021	-.247	-.037
.850	-.169	-.372	-.159	-.156	-.125	-.037	-.112	-.020
.950	-.109	-.274	-.084	-.134	-.036	-.013	-.023	.007

ALPHA = 11.99 DEG      Q = 2843 N/SC.M. (59.37 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.330		-.099		-.940	
.010			.307	.986				
.015					-.730	.955		
.025			-.856	.895	-.678	.839	-.959	.815
.050			-.822	.735	-.875	.668	-1.006	.640
.100			-.854	.527	-.880	.493	-1.054	.432
.150			-.862	.353	-.695	.330	-1.029	.274
.250	-.655		-.858	.148	-.884	.162	-1.048	.102
.400	-.683		-.837	-.013	-.888	.014	-.916	-.040
.550	-.553	-.009	-.800	-.022	-.762	-.068	-.828	-.096
.700	-.471	-.076	-.614	-.092	-.629	-.110	-.595	-.107
.850	-.273	-.448	-.489	-.286	-.558	-.144	-.362	-.129
.950	-.184	-.338	-.416	-.274	-.459	-.248	-.393	-.152

ALPHA = 14.04 DEG      Q = 2843 N/SC.M. (59.39 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.389		.001		-.813	
.010			.302	.983				
.015					-.572	.948		
.025			-.528	.917	-.583	.850	-.866	.820
.050			-.537	.765	-.578	.721	-.869	.659
.100			-.545	.561	-.537	.507	-.875	.455
.150			-.553	.390	-.561	.351	-.885	.291
.250	-.551		-.550	.173	-.610	.188	-.875	.110
.400	-.633		-.613	-.007	-.646	.014	-.934	-.036
.550	-.654	-.019	-.666	-.041	-.722	-.080	-.899	-.119
.700	-.678	-.105	-.720	-.140	-.687	-.145	-.799	-.158
.850	-.673	-.518	-.651	-.371	-.646	-.255	-.695	-.213
.950	-.550	-.420	-.566	-.433	-.579	-.375	-.567	-.288

TABLE 12 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.01 DEG Q = 2848 N/SQ.M. (59.48 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.260		-.111		-.960	
.010			.291	.959				
.015					-.517	.958		
.025			-.544	.952	-.531	.910	-.916	.863
.050			-.544	.835	-.508	.756	-.876	.711
.100			-.542	.618	-.524	.574	-.858	.516
.150			-.536	.478	-.520	.411	-.819	.325
.250	-.555		-.560	.227	-.552	.236	-.845	.160
.400	-.624		-.626	.028	-.649	.040	-.922	-.020
.550	-.676	-.005	-.655	-.017	-.663	-.053	-.892	-.117
.700	-.701	-.131	-.691	-.146	-.664	-.137	-.850	-.172
.850	-.723	-.576	-.670	-.416	-.647	-.265	-.809	-.277
.950	-.670	-.484	-.640	-.463	-.601	-.391	-.617	-.348

ALPHA = 18.02 DEG Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.088		-.274		-.938	
.010			.262	.887				
.015					-.530	.977		
.025			-.564	.986	-.531	.940	-.784	.896
.050			-.562	.889	-.526	.827	-.795	.759
.100			-.556	.698	-.535	.630	-.752	.537
.150			-.566	.546	-.546	.478	-.783	.390
.250	-.591		-.577	.315	-.559	.267	-.791	.186
.400	-.642		-.647	.075	-.618	.074	-.823	.009
.550	-.682	-.003	-.671	.006	-.686	-.039	-.857	-.100
.700	-.725	-.133	-.710	-.131	-.701	-.134	-.864	-.181
.850	-.753	-.610	-.726	-.409	-.665	-.274	-.842	-.303
.950	-.676	-.511	-.663	-.488	-.607	-.411	-.800	-.445

ALPHA = 20.02 DEG Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.190		-.371		-1.018	
.010			.214	.791				
.015					-.535	.971		
.025			-.574	.983	-.553	.966	-.756	.913
.050			-.572	.924	-.524	.862	-.748	.792
.100			-.604	.770	-.549	.693	-.753	.609
.150			-.589	.644	-.546	.549	-.762	.446
.250	-.586		-.556	.374	-.571	.339	-.778	.237
.400	-.665		-.662	.127	-.636	.147	-.817	.055
.550	-.722	.040	-.719	.033	-.681	-.006	-.870	-.082
.700	-.753	-.137	-.729	-.113	-.683	-.112	-.843	-.185
.850	-.781	-.650	-.716	-.414	-.677	-.261	-.854	-.320
.950	-.745	-.555	-.690	-.511	-.622	-.413	-.829	-.476

TABLE 12 (B)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG Q = 2033 N/SQ.M. (42.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.840		.971		.815	
.010			-.012	.256				
.015					-.846	.221		
.025			-.664	.081	-.650	-.143	-.667	.002
.050			-.537	-.122	-.594	-.050	-.519	-.080
.100			-.512	-.262	-.495	-.188	-.439	-.167
.150			-.536	-.353	-.559	-.264	-.468	-.261
.250	-.383		-.491	-.395	-.518	-.332	-.457	-.326
.400	-.483		-.521	-.407	-.503	-.405	-.439	-.347
.550	-.427	-.226	-.418	-.398	-.408	-.376	-.339	-.295
.700	-.384	-.341	-.358	-.474	-.302	-.366	-.205	-.223
.850	-.373	-1.038	-.314	-.663	-.229	-.332	-.126	-.140
.950	-.391	-.641	-.297	-.486	-.176	-.227	-.054	-.045

ALPHA = 4.02 DEG Q = 2028 N/SQ.M. (42.36 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.829		-.180		-.687	
.010			.073	.932				
.015					-2.065	.792		
.025			-1.702	.601	-1.905	.605	-1.793	.595
.050			-1.159	.348	-1.215	.368	-1.219	.361
.100			-.816	.182	-1.050	.222	-.870	.194
.150			-.815	.017	-.888	.013	-.738	.022
.250	-.502		-.708	-.192	-.754	-.128	-.714	-.131
.400	-.581		-.658	-.271	-.662	-.215	-.561	-.209
.550	-.491	-.139	-.510	-.311	-.502	-.290	-.415	-.229
.700	-.426	-.308	-.422	-.434	-.383	-.311	-.272	-.174
.850	-.388	-1.088	-.350	-.668	-.265	-.316	-.185	-.130
.950	-.401	-.725	-.322	-.499	-.207	-.243	-.084	-.066

ALPHA = 8.04 DEG Q = 2035 N/SQ.M. (42.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.845		-2.508		-3.551	
.010			-.016	.853				
.015					-4.209	.983		
.025			-2.854	.934	-2.907	.939	-2.524	.874
.050			-1.983	.756	-2.132	.735	-1.853	.702
.100			-1.314	.494	-1.505	.531	-1.347	.448
.150			-1.166	.345	-1.210	.313	-1.150	.263
.250	-.633		-.936	.097	-1.001	.125	-.953	.068
.400	-.659		-.774	-.100	-.798	-.072	-.703	-.076
.550	-.558	-.115	-.598	-.188	-.600	-.199	-.513	-.126
.700	-.469	-.318	-.472	-.363	-.437	-.246	-.330	-.124
.850	-.426	-1.133	-.390	-.650	-.300	-.281	-.201	-.117
.950	-.431	-.839	-.344	-.513	-.224	-.233	-.109	-.075

TABLE 12 (B) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.02 DEG Q = 2037 N/SQ.M. (42.55 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.006		-4.265		-1.627	
.010			-.200	.588				
.015					-4.343	.980		
.025			-3.480	.997	-3.838	.913	-1.514	.873
.050			-2.299	.884	-2.493	.740	-1.762	.691
.100			-1.577	.620	-1.708	.532	-1.803	.455
.150			-1.319	.458	-1.480	.363	-1.698	.288
.250	-.681		-1.034	.214	-1.094	.210	-1.322	.093
.400	-.714		-.835	-.029	-.866	-.017	-.907	-.067
.550	-.576	-.078	-.634	-.151	-.637	-.128	-.596	-.141
.700	-.491	-.315	-.454	-.338	-.464	-.218	-.444	-.158
.850	-.440	-1.141	-.463	-.654	-.319	-.333	-.371	-.163
.950	-.442	-.882	-.355	-.540	-.240	-.353	-.318	-.158

ALPHA = 12.02 DEG Q = 2040 N/SQ.M. (42.61 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.106		-.519		-1.465	
.010			-.202	.920				
.015					-.946	.979		
.025			-1.073	.964	-.963	.916	-1.344	.885
.050			-.856	.842	-.927	.757	-1.335	.736
.100			-.983	.609	-.986	.570	-1.350	.489
.150			-1.042	.460	-1.034	.404	-1.385	.313
.250	-.843		-1.141	.184	-1.052	.204	-1.410	.129
.400	-.908		-1.159	-.035	-1.130	-.026	-1.275	-.051
.550	-.872	-.035	-1.009	-.171	-1.054	-.170	-1.173	-.140
.700	-.800	-.316	-.883	-.389	-.998	-.287	-.910	-.177
.850	-.722	-1.204	-.743	-.752	-.888	-.401	-.638	-.217
.950	-.624	-1.000	-.713	-.720	-.754	-.512	-.503	-.285

ALPHA = 14.01 DEG Q = 2039 N/SQ.M. (42.58 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.074		-.550		-1.471	
.010			-.205	.875				
.015					-.867	.977		
.025			-.806	.965	-.900	.948	-1.279	.897
.050			-.778	.872	-.852	.814	-1.205	.745
.100			-.777	.672	-.865	.627	-1.198	.533
.150			-.817	.497	-.879	.464	-1.238	.358
.250	-.805		-.833	.250	-.951	.233	-1.214	.162
.400	-.879		-.883	-.007	-.985	-.004	-1.296	-.042
.550	-.901	-.016	-.927	-.174	-1.016	-.178	-1.258	-.149
.700	-.921	-.312	-.963	-.423	-1.020	-.316	-1.125	-.221
.850	-.884	-1.294	-.911	-.824	-.946	-.506	-.856	-.285
.950	-.721	-1.087	-.811	-.816	-.865	-.674	-.715	-.389

TABLE 12 (B), CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.01 DEG Q = 2036 N/SQ.M. (42.53 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.274		-.658		-1.453	
.010			-.221	.756				
.015					-.852	.971		
.025			-.762	.993	-.842	.965	-1.175	.911
.050			-.753	.919	-.845	.859	-1.160	.788
.100			-.764	.758	-.827	.670	-1.135	.563
.150			-.786	.593	-.843	.536	-1.136	.399
.250	-.775		-.817	.340	-.870	.282	-1.159	.186
.400	-.834		-.895	.045	-.930	.035	-1.147	-.022
.550	-.876	-.042	-.882	-.142	-.963	-.154	-1.219	-.152
.700	-.927	-.322	-.907	-.423	-.967	-.315	-1.168	-.242
.850	-.953	-1.344	-.909	-.862	-.971	-.525	-1.043	-.375
.950	-.941	-1.160	-.826	-.852	-.905	-.692	-.919	-.517

ALPHA = 18.01 DEG Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.476		-.805		-1.461	
.010			-.255	.707				
.015					-.851	.939		
.025			-.770		-.832	.975	-1.114	.923
.050			-.774	.952	-.835	.885	-1.094	.827
.100			-.764	.792	-.859	.724	-1.091	.621
.150			-.771	.640	-.871	.571	-1.101	.464
.250	-.797		-.754	.399	-.883	.343	-1.111	.233
.400	-.846		-.869	.094	-.956	.074	-1.145	.003
.550	-.884	-.046	-.923	-.112	-.980	-.119	-1.199	-.145
.700	-.946	-.300	-.940	-.407	-.988	-.294	-1.175	-.260
.850	-.968	-1.379	-.926	-.863	-.989	-.528	-1.137	-.420
.950	-.982	-1.197	-.854	-.885	-.923	-.712	-1.029	-.604

ALPHA = 20.00 DEG Q = 2036 N/SQ.M. (42.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.652		-.915		-1.284	
.010			-.299	.530				
.015					-.844	.907		
.025			-.776	.958	-.839	.978	-1.098	.925
.050			-.767	.978	-.833	.931	-1.088	.850
.100			-.813	.864	-.838	.780	-1.119	.669
.150			-.790	.711	-.871	.640	-1.092	.495
.250	-.802		-.809	.441	-.861	.396	-1.083	.282
.400	-.846		-.933	.136	-.961	.140	-1.112	.053
.550	-.899	-.008	-.945	-.087	-1.018	-.079	-1.137	-.122
.700	-.922	-.392	-.989	-.401	-1.035	-.263	-1.161	-.261
.850	-.976	-1.426	-.933	-.895	-1.041	-.505	-1.128	-.447
.950	-1.003	-1.307	-.883	-.891	-.955	-.707	-1.075	-.639

TABLE 12 (C)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .01 DEG      Q = 911 N/SQ.M. (19.02 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.939		.939		.890	
.010			-1.015	.262				
.015					-.622	.004		
.025			-.702	-.165	-.843	-.231	-.646	-.044
.050			-.530	-.319	-.584	-.210	-.568	-.155
.100			-.520	-.357	-.584	-.266	-.437	-.243
.150			-.525	-.463	-.553	-.373	-.445	-.362
.250			-.544	-.555	-.580	-.477	-.499	-.408
.400	-.432		-.609	-.584	-.550	-.530	-.476	-.460
.550	-.485	-.403	-.518	-.551	-.462	-.549	-.389	-.406
.700	-.454	-.596	-.442	-.663	-.390	-.523	-.281	-.325
.850	-.486	-1.386	-.393	-.866	-.298	-.481	-.180	-.236
.950	-.544	-.947	-.358	-.658	-.276	-.359	-.125	-.130

ALPHA = 4.00 DEG      Q = 912 N/SQ.M. (19.04 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.793		.178		-.397	
.010			-.880	.854				
.015					-1.923	.696		
.025			-1.730	.468	-1.754	.466	-1.583	.537
.050			-1.272	.207	-1.339	.290	-1.282	.250
.100			-.861	-.043	-.997	.088	-.824	.045
.150			-.921	-.102	-.918	-.085	-.762	-.152
.250	-.550		-.805	-.387	-.816	-.276	-.767	-.228
.400	-.640		-.734	-.489	-.703	-.409	-.623	-.342
.550	-.561	-.405	-.604	-.529	-.600	-.481	-.480	-.343
.700	-.507	-.670	-.523	-.685	-.478	-.501	-.347	-.289
.850	-.515	-1.474	-.488	-.947	-.380	-.481	-.247	-.237
.950	-.571	-1.081	-.475	-.743	-.329	-.419	-.169	-.169

ALPHA = 8.02 DEG      Q = 906 N/SQ.M. (18.93 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.474		-1.865		-3.287	
.010			-.838	.918				
.015					-3.977	.941		
.025			-3.416	.868	-3.346	.842	-2.931	.796
.050			-2.016	.668	-2.032	.626	-1.895	.588
.100			-1.361	.430	-1.531	.409	-1.368	.332
.150			-1.194	.207	-1.453	.198	-1.130	.145
.250	-.685		-.978	-.080	-1.079	-.055	-.985	-.042
.400	-.753		-.842	-.336	-.896	-.256	-.767	-.209
.550	-.652	-.427	-.674	-.443	-.688	-.340	-.585	-.269
.700	-.581	-.695	-.580	-.636	-.538	-.454	-.422	-.256
.850	-.567	-1.537	-.513	-.930	-.420	-.473	-.300	-.234
.950	-.616	-1.187	-.497	-.784	-.372	-.404	-.211	-.178

TABLE 12 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.00 DEG      Q = 904 N/SQ.M. (118.89 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.545		-3.952		-4.754	
.010			-.872	.704				
.015					-5.407	.913		
.025			-3.494	.943	-3.599	.931	-3.235	.913
.050			-2.257	.777	-2.463	.755	-2.264	.727
.100			-1.571	.516	-1.782	.485	-1.651	.448
.150			-1.346	.323	-1.501	.337	-1.378	.246
.250	-.756		-1.106	.006	-1.209	.038	-1.123	.042
.400	-.798		-.918	-.282	-1.170	-.206	-.844	-.135
.550	-.682	-.401	-.723	-.406	-.737	-.344	-.619	-.222
.700	-.601	-.722	-.605	-.623	-.579	-.436	-.463	-.242
.850	-.582	-1.605	-.544	-.949	-.451	-.479	-.316	-.240
.950	-.635	-1.219	-.520	-.808	-.394	-.405	-.237	-.205

ALPHA = 12.02 DEG      Q = 905 N/SQ.M. (118.90 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

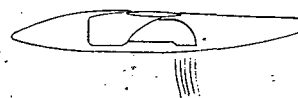
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.397		-.844		-1.940	
.010			-.829	.839				
.015					-1.445	.935		
.025			-1.665	.923	-1.339	.873	-1.861	.841
.050			-1.261	.778	-1.487	.691	-1.760	.669
.100			-1.187	.526	-1.332	.476	-1.658	.420
.150			-1.605	.333	-1.412	.282	-1.734	.247
.250	-1.006		-1.581	.052	-1.564	.041	-1.625	.022
.400	-.895		-1.250	-.258	-1.296	-.196	-1.318	-.169
.550	-.785	-.392	-.896	-.418	-1.158	-.373	-1.006	-.253
.700	-.726	-.692	-.768	-.653	-.878	-.471	-.665	-.279
.850	-.641	-1.617	-.645	-.995	-.734	-.590	-.481	-.308
.950	-.674	-1.228	-.685	-.849	-.688	-.573	-.381	-.316

ALPHA = 14.00 DEG      Q = 908 N/SQ.M. (118.96 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.189		-.746		-1.803	
.010			-.756	.839				
.015					-1.152	.928		
.025			-1.060	.933	-1.189	.879	-1.604	.851
.050			-1.019	.801	-1.105	.712	-1.564	.700
.100			-1.012	.554	-1.145	.518	-1.520	.480
.150			-1.147	.367	-1.168	.353	-1.527	.268
.250	-1.067		-1.223	.083	-1.355	.088	-1.571	.063
.400	-1.069		-1.247	-.244	-1.279	-.210	-1.556	-.142
.550	-1.057	-.332	-1.196	-.422	-1.277	-.385	-1.386	-.248
.700	-.963	-.708	-1.087	-.693	-1.147	-.501	-1.162	-.304
.850	-.878	-1.662	-.986	-1.090	-1.051	-.685	-.873	-.342
.950	-.762	-1.288	-.857	-.974	-.891	-.724	-.543	-.382



TABLE 12 (C) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 15.98 DEG      Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.279		-.792		-1.823	
.010			-.752	.783				
.015					-1.043	.933		
.025			-.965	.939	-1.064	.904	-1.452	.869
.050			-.974	.842	-1.059	.783	-1.449	.738
.100			-.964	.611	-1.054	.571	-1.398	.505
.150			-.988	.443	-1.066	.384	-1.378	.317
.250	-.931		-.975	.121	-1.102	.114	-1.438	.092
.400	-1.031		-1.029	-.210	-1.153	-.171	-1.527	-.135
.550	-1.079	-.325	-1.061	-.418	-1.213	-.389	-1.460	-.262
.700	-1.084	-.710	-1.141	-.718	-1.204	-.546	-1.353	-.331
.850	-1.067	-1.757	-1.068	-1.165	-1.105	-.738	-1.018	-.413
.950	-.992	-1.381	-.956	-1.039	-1.042	-.890	-.872	-.540

ALPHA = 18.03 DEG      Q = 913 N/SQ.M. (19.08 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.505		-.956		-1.678	
.010			-.800	.664				
.015					-1.038	.916		
.025			-.911	.942	-1.026	.925	-1.364	.882
.050			-.857	.882	-1.011	.806	-1.287	.764
.100			-.919	.688	-1.006	.618	-1.357	.547
.150			-.954	.505	-1.021	.442	-1.297	.364
.250	-.964		-.940	.183	-1.044	.188	-1.307	.142
.400	-.980		-1.021	-.172	-1.128	-.141	-1.366	-.108
.550	-1.045	-.317	-1.076	-.400	-1.110	-.355	-1.465	-.261
.700	-1.017	-.748	-1.083	-.717	-1.174	-.557	-1.330	-.372
.850	-1.051	-1.847	-1.043	-1.190	-1.154	-.772	-1.245	-.494
.950	-1.043	-1.468	-.973	-1.083	-1.087	-.904	-1.069	-.667

ALPHA = 19.99 DEG      Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.621		-1.020		-1.636	
.010			-1.011	.530				
.015					-1.004	.868		
.025			-.905	.920	-1.013	.927	-1.298	.878
.050			-.912	.897	-.978	.849	-1.293	.788
.100			-.909	.745	-.987	.686	-1.250	.580
.150			-.924	.573	-1.014	.520	-1.266	.406
.250	-.954		-.973	.255	-1.046	.237	-1.278	.170
.400	-1.006		-1.054	-.103	-1.120	-.086	-1.292	-.075
.550	-1.051	-.297	-1.074	-.357	-1.135	-.338	-1.371	-.262
.700	-1.126	-.739	-1.116	-.713	-1.165	-.550	-1.311	-.389
.850	-1.167	-1.865	-1.068	-1.193	-1.157	-.776	-1.259	-.556
.950	-1.111	-1.499	-1.006	-1.115	-1.112	-.935	-1.199	-.739

TABLE 12 (D)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.346		.632		.743	
.010			-.6055	-.540				
.015					-.470	-1.028		
.025			-.707	-.777	-.533	-.805	-.442	-.700
.050			-.540	-.644	-.540	-.721	-.526	-.707
.100			-.556	-.833	-.561	-.777	-.554	-.679
.150			-.616	-.930	-.630	-.805	-.526	-.728
.250	-.582		-.630	-.963	-.658	-.895	-.644	-.794
.400	-.655		-.682	-.987	-.672	-.950	-.635	-.784
.550	-.622	-.791	-.625	-.929	-.615	-.912	-.534	-.740
.700	-.615	-.865	-.605	-.970	-.574	-.848	-.473	-.655
.850	-.642	-1.507	-.608	-1.075	-.513	-.791	-.409	-.568
.950	-.733	-1.135	-.622	-.990	-.507	-.649	-.355	-.409

ALPHA = 3.99 DEG Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.750		.611		.227	
.010			-5.560	.255				
.015					-1.376	.109		
.025			-1.376	-.003	-1.460	-.100	-1.376	.081
.050			-1.258	-.247	-1.112	-.219	-1.091	-.247
.100			-.881	-.407	-.944	-.351	-.909	-.351
.150			-.902	-.540	-.937	-.498	-.874	-.491
.250	-.651		-.826	-.760	-.840	-.628	-.833	-.541
.400	-.689		-.777	-.811	-.797	-.753	-.723	-.618
.550	-.645	-.737	-.696	-.835	-.686	-.777	-.632	-.601
.700	-.649	-.936	-.639	-.933	-.595	-.784	-.486	-.541
.850	-.666	-1.575	-.639	-1.037	-.520	-.696	-.412	-.466
.950	-.764	-1.291	-.689	-.956	-.517	-.679	-.372	-.409

ALPHA = 7.98 DEG Q = 224 N/SQ.M. ( 4.67 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.339		-.443		-1.690	
.010			-5.143	.776				
.015					-2.712	.656		
.025			-2.360	.473	-2.170	.395	-2.261	.367
.050			-1.733	.219	-1.930	.142	-1.867	.113
.100			-1.162	.001	-1.275	-.105	-1.113	-.035
.150			-1.099	-.274	-1.162	-.246	-1.063	-.218
.250	-.739		-.986	-.540	-1.035	-.461	-.986	-.383
.400	-.806		-.892	-.721	-.943	-.656	-.840	-.543
.550	-.724	-.810	-.769	-.775	-.789	-.724	-.690	-.560
.700	-.697	-1.018	-.711	-.888	-.676	-.731	-.567	-.516
.850	-.707	-1.660	-.687	-1.056	-.598	-.683	-.482	-.458
.950	-.813	-1.380	-.711	-.936	-.574	-.639	-.420	-.413

TABLE 12 (D) - CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.04 DEG Q = 225 N/SQ.M. ( 4.70 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.447		-1.700		-2.434	
.010			-4.827	.742				
.015					-3.316	.700		
.025			-2.889	.582	-3.078	.561	-3.225	.554
.050			-1.770	.379	-2.000	.344	-1.790	.316
.100			-1.441	.050	-1.637	.120	-1.497	.050
.150			-1.308	-.160	-1.378	-.125	-1.315	-.160
.250	-.825		-1.126	-.417	-1.175	-.353	-1.133	-.370
.400	-.845		-.970	-.655	-1.011	-.567	-.933	-.482
.550	-.787	-.824	-.824	-.750	-.845	-.709	-.763	-.526
.700	-.729	-1.052	-.740	-.892	-.723	-.723	-.614	-.519
.850	-.743	-1.713	-.709	-1.075	-.628	-.699	-.499	-.461
.950	-.852	-1.445	-.736	-.943	-.601	-.621	-.438	-.400

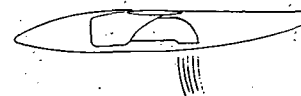
ALPHA = 11.97 DEG Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.390		-2.992		-4.394	
.010			-4.657	.552				
.015					-4.844	.705		
.025			-4.102	.691	-4.262	.663	-3.728	.635
.050			-2.181	.504	-2.500	.379	-2.292	.414
.100			-1.633	.212	-1.952	.122	-1.730	.122
.150			-1.487	.004	-1.598	-.023	-1.508	-.086
.250	-.911		-1.217	-.377	-1.328	-.280	-1.300	-.270
.400	-.939		-1.067	-.646	-1.117	-.532	-1.006	-.471
.550	-.848	-.851	-.858	-.737	-.925	-.687	-.814	-.542
.700	-.787	-1.104	-.758	-.909	-.774	-.747	-.673	-.539
.850	-.801	-1.766	-.754	-1.120	-.673	-.734	-.549	-.508
.950	-.892	-1.487	-.784	-.966	-.643	-.636	-.471	-.465

ALPHA = 14.01 DEG Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.864		-1.456		-2.377	
.010			-4.441	.607				
.015					-1.979			
.025			-2.112	.670	-2.035	.621	-2.258	.600
.050			-2.321	.503	-2.112	.433	-2.223	.419
.100			-2.258	.217	-2.244	.182	-2.105	.147
.150			-2.210	-.041	-2.119	-.027	-2.119	-.062
.250	-1.045		-1.777	-.336	-1.701	-.309	-1.763	-.272
.400	-1.032		-1.134	-.640	-1.201	-.576	-1.205	-.465
.550	-.928	-.847	-.854	-.745	-.941	-.711	-1.009	-.563
.700	-.823	-1.151	-.803	-.934	-.826	-.779	-.847	-.576
.850	-.820	-1.800	-.765	-1.134	-.813	-.809	-.664	-.576
.950	-.911	-1.496	-.769	-.985	-.711	-.715	-.586	-.482

TABLE 12 (D) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.03 DEG Q = 224 N/SC.M. ( 4.68 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.651		-1.052		-2.079	
.010			-4.238	.545				
.015					-1.615	.685		
.025			-1.495	0.000	-1.657	.601	-1.826	.594
.050			-1.776	.552	-1.516	.446	-1.903	.425
.100			-1.758	.263	-1.516	.200	-1.784	.151
.150			-1.657	.031	-1.565	-.011	-1.812	-.046
.250	-1.207		-1.734	-.307	-1.551	-.270	-1.854	-.263
.400	-1.248		-1.552	-.614	-1.586	-.553	-1.650	-.481
.550	-1.030	-.853	-1.241	-.740	-1.425	-.716	-1.405	-.590
.700	-1.095	-1.119	-1.132	-.938	-1.159	-.822	-1.132	-.617
.850	-.924	-1.794	-.989	-1.173	-.989	-.839	-.917	-.634
.950	-.941	-1.473	-.818	-.956	-.917	-.859	-.805	-.631

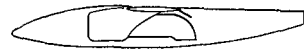
ALPHA = 18.00 DEG Q = 225 N/SC.M. ( 4.70 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.460		-1.027		-2.056	
.010			-3.980	.554				
.015					-1.405	.666		
.025			-1.286	0.000	-1.307	.645	-1.825	.617
.050			-1.251	.554	-1.363	.463	-1.755	.463
.100			-1.314	.316	-1.349	.225	-1.692	.183
.150			-1.356	.036	-1.454	.036	-1.797	-.027
.250	-1.293		-1.384	-.249	-1.475	-.256	-1.818	-.226
.400	-1.321		-1.511	-.585	-1.464	-.548	-1.711	-.470
.550	-1.304	-.799	-1.385	-.751	-1.497	-.721	-1.613	-.595
.700	-1.155	-1.114	-1.355	-.985	-1.399	-.853	-1.389	-.629
.850	-1.053	-1.793	-1.209	-1.263	-1.260	-.982	-1.189	-.700
.950	-1.148	-1.494	-1.080	-1.074	-1.172	-.982	-.890	-.694

ALPHA = 20.00 DEG Q = 226 N/SC.M. ( 4.71 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.587		-1.013		-2.054	
.010			-3.821	.460				
.015					-1.328			
.025			-1.188	.635	-1.258	.635	-1.691	.614
.050			-1.160	.565	-1.272	.474	-1.656	.432
.100			-1.188	.321	-1.328	.251	-1.572	.209
.150			-1.251	.132	-1.258	.055	-1.656	-.001
.250	-1.174		-1.188	-.241	-1.335	-.241	-1.677	-.245
.400	-1.230		-1.359	-.580	-1.420	-.543	-1.640	-.465
.550	-1.382	-.847	-1.406	-.807	-1.392	-.763	-1.731	-.604
.700	-1.315	-1.155	-1.359	-1.017	-1.392	-.915	-1.558	-.685
.850	-1.264	-1.863	-1.291	-1.348	-1.332	-1.057	-1.315	-.797
.950	-1.155	-1.555	-1.155	-1.162	-1.230	-1.135	-1.152	-.858

TABLE 13 (A)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = .00 DEG		Q = 2845 N/SC.M. (59.42 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP		CP		
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	
.000			.943		.953		.838				
.010			.534	.551							
.015					-.779	.290					
.025			-.908	.073	-.550	.167	-.505	.058			
.050			-.508	.030	-.589	.029	-.639	.001			
.100			-.522	-.069	-.538	.027	-.445	-.004			
.150			-.547	-.109	-.531	-.061	-.494	-.111			
.250	-.397		-.514	-.099	-.543	-.111	-.460	-.157			
.400	-.484		-.534	-.079	-.509	-.054	-.414	-.192			
.550	-.427	.033	-.437	.007	-.434	.078	-.338	-.132			
.700	-.380	.119	-.363	.260	-.345	.284	-.189	-.098			
.850	-.357	.187	-.319	.441	-.286	.507	-.097	-.010			
.950	-.359	.150	-.255	.570	-.264	.623	-.015	.048			

ALPHA = 3.99 DEG		Q = 2842 N/SC.M. (59.37 LBF/SQ.FT.)		EFFECT. VELOC. RATIO = ∞				
ETA = .250		ETA = .387		ETA = .524		ETA = .800		
X/C	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.720		-.337		-.671	
.010			.574	.974				
.015					-2.303	.855		
.025			-2.013	.637	-1.983	.723	-1.577	.633
.050			-1.154	.459	-1.179	.497	-1.108	.483
.100			-.873	.307	-.960	.429	-.719	.293
.150			-.879	.182	-.870	.221	-.803	.120
.250	-.513		-.722	.111	-.780	.113	-.684	.008
.400	-.575		-.656	.133	-.667	.103	-.543	-.099
.550	-.497	.159	-.517	.203	-.518	.182	-.430	-.050
.700	-.423	.255	-.421	.351	-.414	.351	-.261	-.036
.850	-.381	.204	-.353	.494	-.328	.542	-.142	-.010
.950	-.342	.214	-.270	.609	-.286	.650	-.050	.014

ALPHA = 8.00 DEG		Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞					
ETA = .250				ETA = .387		ETA = .524		ETA = .800			
X/C	CP		UPPER	CP	LOWER	UPPER	CP	LOWER	UPPER	CP	LOWER
.000											
.010											
.015											
.025											
.050											
.100											
.150											
.250											
.400											
.550											
.700											
.850											
.950											

TABLE 13 (A) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.03 DEG

Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.047		-.528		-1.418	
.010			.485	.921				
.015					-1.289	.979		
.025			-1.491	.960	-1.135	.921	-1.469	.871
.050			-1.410	.842	-1.006	.777	-1.457	.706
.100			-1.257	.666	-1.177	.607	-1.453	.511
.150			-1.383	.527	-1.071	.480	-1.445	.365
.250	-.843		-1.328	.358	-1.369	.359	-1.452	.192
.400	-.813		-1.235	.274	-1.162	.274	-1.303	.069
.550	-.728	.290	-.992	.352	-1.017	.313	-.748	.020
.700	-.573	.308	-.847	.424	-.906	.394	-.583	-.004
.850	-.489	.269	-.502	.540	-.570	.584	-.366	-.039
.950	-.318	.310	-.456	.646	-.581	.676	-.211	-.063

ALPHA = 11.99 DEG

Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.107		-.393		-1.274	
.010			.504	.951				
.015					-.848	.981		
.025			-.746	.971	-.849	.921	-1.199	.880
.050			-.877	.853	-.951	.804	-1.150	.732
.100			-.904	.697	-.785	.632	-1.155	.539
.150			-.834	.559	-.824	.509	-1.236	.387
.250	-.746		-.864	.393	-1.001	.372	-1.282	.212
.400	-.866		-.930	.300	-.919	.300	-1.228	.087
.550	-.907	.312	-.952	.359	-1.041	.317	-1.142	.025
.700	-.868	.333	-.883	.433	-.941	.392	-.858	-.004
.850	-.739	.277	-.765	.548	-.829	.586	-.663	-.101
.950	-.526	.301	-.709	.650	-.739	.671	-.454	-.129

ALPHA = 14.01 DEG

Q = 2841 N/SQ.M. (59.34 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.059		-.492		-1.086	
.010			.459	.841				
.015					-.735	.976		
.025			-.758	.988	-.765	.947	-.908	.889
.050			-.737	.900	-.710	.840	-.949	.754
.100			-.761	.734	-.719	.669	-.975	.558
.150			-.788	.610	-.734	.561	-1.053	.408
.250	-.734		-.801	.434	-.744	.409	-.985	.240
.400	-.799		-.759	.325	-.813	.319	-.992	.089
.550	-.858	.314	-.826	.383	-.826	.321	-1.110	.010
.700	-.855	.319	-.835	.447	-.816	.403	-.998	-.047
.850	-.751	.268	-.755	.549	-.772	.589	-.823	-.142
.950	-.651	.277	-.770	.650	-.768	.671	-.758	-.270

TABLE 13 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS

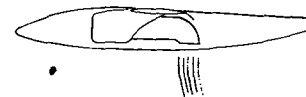


ALPHA = 15.98 DEG			Q = 2842 N/SQ.M. (59.36 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP				
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
.000			-.212		-.563		-.954				
.010			.478	.803							
.015					-.710	.969					
.025			-.746		-.695	.963	-.798	.897			
.050			-.709	.931	-.738	.874	-.787	.774			
.100			-.748	.792	-.710	.731	-.795	.579			
.150			-.707	.664	-.700	.591	-.748	.436			
.250	-.733		-.771	.476	-.727	.458	-.776	.280			
.400	-.792		-.817	.349	-.773	.344	-.838	.108			
.550	-.791	.321	-.812	.401	-.788	.350	-.898	.007			
.700	-.797	.316	-.820	.442	-.771	.415	-.946	-.067			
.850	-.770	.268	-.784	.545	-.747	.590	-.811	-.199			
.950	-.703	.281	-.770	.647	-.758	.676	-.790	-.368			

ALPHA = 18.00 DEG			Q = 2842 N/SQ.M. (59.37 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP				
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
.000			-.310		-.673		-1.018				
.010			.444	.710							
.015					-.738	.941					
.025			-.739	.983	-.714	.974	-.730	.915			
.050			-.754	.952	-.693	.908	-.720	.808			
.100			-.696	.840	-.719	.758	-.758	.641			
.150			-.719	.720	-.723	.668	-.749	.485			
.250	-.746		-.724	.538	-.743	.518	-.747	.310			
.400	-.758		-.785	.382	-.761	.382	-.834	.137			
.550	-.762	.343	-.751	.424	-.772	.376	-.802	.023			
.700	-.744	.336	-.757	.459	-.765	.430	-.841	-.061			
.850	-.768	.276	-.799	.548	-.807	.604	-.820	-.205			
.950	-.717	.261	-.820	.643	-.802	.682	-.761	-.390			

ALPHA = 20.04 DEG			Q = 2844 N/SQ.M. (59.39 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP				
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
.000			-.530		-.752		-.805				
.010			.394	.584							
.015					-.701	.922					
.025			-.719	.947	-.693	.979	-.702	.929			
.050			-.718	.974	-.735	.943	-.692	.839			
.100			-.702	.883	-.701	.823	-.700	.675			
.150			-.712	.770	-.731	.709	-.721	.531			
.250	-.742		-.727	.584	-.712	.553	-.703	.367			
.400	-.768		-.731	.428	-.715	.416	-.737	.172			
.550	-.767	.372	-.755	.444	-.797	.400	-.737	.067			
.700	-.750	.347	-.758	.478	-.805	.464	-.783	-.033			
.850	-.786	.287	-.758	.536	-.806	.609	-.768	-.192			
.950	-.733	.273	-.803	.650	-.796	.691	-.765	-.384			

TABLE 13 (B)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = .00 DEG Q = 2040 N/SQ.M. (42.62 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.913		.712		.537	
.010			.219	.846				
.015					-1.430	.602		
.025			-1.391	.469	-1.310	.484	-1.127	.392
.050			-.990	.252	-1.005	.277	-.823	.175
.100			-.754	.084	-.801	.156	-.673	.052
.150			-.789	.003	-.796	.089	-.608	-.065
.250	-.550		-.764	-.046	-.785	-.048	-.631	-.186
.400	-.676		-.752	-.015	-.721	-.064	-.574	-.226
.550	-.645	.134	-.672	.087	-.648	.020	-.465	-.210
.700	-.648	.226	-.641	.176	-.600	.175	-.348	-.168
.850	-.720	.078	-.665	.312	-.606	.397	-.232	-.129
.950	-.886	.062	-.690	.443	-.687	.517	-.150	-.075

ALPHA = 4.02 DEG Q = 2029 N/SQ.M. (42.37 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.169		-1.502		-2.014	
.010			.198	.984				
.015					-3.515	.952		
.025			-2.919	.865	-3.163	.852	-2.323	.752
.050			-1.665	.665	-1.676	.675	-1.450	.559
.100			-1.253	.437	-1.314	.442	-1.130	.298
.150			-1.144	.306	-1.148	.294	-1.113	.152
.250	-.702		-1.003	.174	-.996	.122	-.901	-.015
.400	-.794		-.916	.094	-.918	.056	-.740	-.120
.550	-.742	.214	-.774	.142	-.784	.085	-.557	-.130
.700	-.723	.256	-.724	.188	-.712	.189	-.414	-.152
.850	-.773	.080	-.730	.329	-.693	.414	-.296	-.149
.950	-.892	.010	-.743	.466	-.753	.527	-.194	-.135

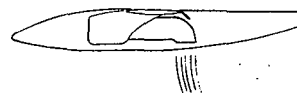
ALPHA = 8.02 DEG Q = 2033 N/SQ.M. (42.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.728		-1.315		-2.396	
.010			.149	.773				
.015					-2.069	.953		
.025			-2.330	.969	-2.052	.926	-2.377	.885
.050			-2.357	.859	-1.896	.814	-2.576	.718
.100			-2.252	.662	-2.082	.606	-2.365	.480
.150			-2.248	.550	-1.931	.467	-2.158	.323
.250	-.927		-1.814	.361	-1.900	.311	-1.300	.123
.400	-.991		-1.084	.223	-1.212	.176	-1.136	-.026
.550	-.871	.307	-.877	.239	-1.213	.193	-.721	-.095
.700	-.825	.305	-.813	.269	-.790	.255	-.548	-.134
.850	-.811	.111	-.779	.355	-.797	.448	-.415	-.171
.950	-.871	.035	-.783	.497	-.808	.544	-.298	-.188



TABLE 13 (B) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.04 DEG Q = 2037 N/SC.M. (42.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.914		-1.342		-2.451	
.010			.074	.656				
.015					-1.643	.942		
.025			-1.983	.978	-1.713	.955	-2.131	.904
.050			-2.065	.922	-1.713	.842	-2.087	.772
.100			-2.024	.756	-1.686	.685	-2.109	.548
.150			-1.963	.635	-1.775	.545	-2.106	.380
.250	-1.193		-1.853	.433	-1.813	.370	-2.147	.196
.400	-1.203		-1.819	.282	-1.792	.242	-1.596	.025
.550	-1.091	.352	-1.420	.298	-1.615	.220	-1.086	-.064
.700	-.909	.339	-1.055	.301	-1.239	.288	-.708	-.110
.850	-.886	.128	-.952	.381	-1.112	.471	-.465	-.169
.950	-.886	.081	-.880	.491	-.960	.546	-.325	-.193

ALPHA = 12.00 DEG Q = 2036 N/SC.M. (42.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .293

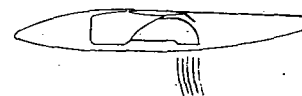
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.821		-1.439		-2.513	
.010			.022	.594				
.015					-1.515	.911		
.025			-1.586	.965	-1.552	.957	-2.001	.909
.050			-1.666	.930	-1.539	.880	-2.063	.806
.100			-1.541	.793	-1.556	.726	-2.011	.600
.150			-1.594	.680	-1.546	.600	-2.021	.425
.250	-1.416		-1.733	.489	-1.624	.414	-2.161	.241
.400	-1.486		-1.748	.330	-1.733	.274	-2.054	.060
.550	-1.443	.400	-1.659	.310	-1.681	.248	-1.631	-.049
.700	-1.206	.393	-1.488	.317	-1.530	.301	-1.055	-.106
.850	-1.022	.178	-1.229	.395	-1.403	.483	-.583	-.175
.950	-.884	.136	-1.042	.531	-1.165	.563	-.406	-.203

ALPHA = 14.00 DEG Q = 2037 N/SC.M. (42.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.847		-1.454		-2.311	
.010			-.043	.551				
.015					-1.424	.872		
.025			-1.332	.954	-1.433	.954	-1.911	.904
.050			-1.319	.951	-1.438	.910	-1.946	.812
.100			-1.337	.834	-1.420	.761	-1.853	.626
.150			-1.303	.718	-1.458	.634	-1.932	.466
.250	-1.266		-1.377	.523	-1.467	.454	-1.904	.263
.400	-1.408		-1.526	.365	-1.652	.304	-1.946	.073
.550	-1.478	.424	-1.565	.337	-1.602	.263	-1.881	-.045
.700	-1.463	.416	-1.462	.335	-1.583	.310	-1.433	-.118
.850	-1.225	.202	-1.394	.398	-1.412	.489	-1.047	-.204
.950	-1.136	.160	-1.267	.542	-1.301	.564	-.589	-.278

TABLE 13 (B) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 16.00 DEG

Q = 2033 N/SQ.M. (42.47 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.952		-1.368		-2.101	
.010			-.114	.430				
.015					-1.321	.828		
.025			-1.251	.924	-1.278	.938	-1.749	.897
.050			-1.221	.958	-1.290	.921	-1.751	.842
.100			-1.239	.872	-1.331	.790	-1.674	.661
.150			-1.240	.757	-1.328	.667	-1.711	.498
.250	-1.237		-1.290	.565	-1.373	.489	-1.712	.292
.400	-1.335		-1.375	.405	-1.476	.334	-1.800	.102
.550	-1.446	.419	-1.396	.340	-1.477	.286	-1.804	-.039
.700	-1.456	.404	-1.432	.343	-1.436	.318	-1.665	-.142
.850	-1.381	.186	-1.390	.399	-1.373	.489	-1.287	-.272
.950	-1.194	.157	-1.327	.541	-1.343	.562	-1.069	-.453

ALPHA = 17.99 DEG

Q = 2037 N/SQ.M. (42.54 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.169		-1.414		-1.758	
.010			-.180	.227				
.015					-1.227	.778		
.025			-1.258	.890	-1.246	.928	-1.565	.882
.050			-1.251	.962	-1.233	.947	-1.622	.850
.100			-1.263	.909	-1.246	.838	-1.580	.689
.150			-1.263	.802	-1.271	.724	-1.620	.536
.250	-1.284		-1.297	.613	-1.265	.546	-1.609	.339
.400	-1.347		-1.335	.427	-1.359	.367	-1.665	.125
.550	-1.376	.459	-1.365	.390	-1.420	.320	-1.728	-.025
.700	-1.415	.430	-1.354	.364	-1.370	.346	-1.669	-.151
.850	-1.368	.189	-1.328	.409	-1.341	.497	-1.507	-.347
.950	-1.255	.177	-1.336	.554	-1.366	.578	-1.267	-.554

ALPHA = 20.01 DEG

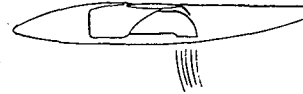
Q = 2039 N/SQ.M. (42.58 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.405		-1.503		-1.542	
.010			-.274	.105				
.015					-1.291	.685		
.025			-1.335	.816	-1.272	.905	-1.420	.875
.050			-1.304	.953	-1.275	.947	-1.486	.864
.100			-1.294	.928	-1.283	.865	-1.466	.714
.150			-1.316	.860	-1.294	.771	-1.515	.591
.250	-1.348		-1.314	.664	-1.325	.594	-1.504	.376
.400	-1.355		-1.373	.487	-1.353	.415	-1.554	.166
.550	-1.377	.522	-1.376	.425	-1.361	.341	-1.589	-.018
.700	-1.342	.479	-1.401	.386	-1.345	.365	-1.596	-.160
.850	-1.394	.223	-1.383	.436	-1.390	.507	-1.528	-.382
.950	-1.251	.192	-1.353	.566	-1.408	.584	-1.372	-.663

TABLE 13 (C)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -0.00 DEG Q = 910 N/SQ.M. (19.01 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.901		.514		.285	
.010			-1.428	.772				
.015					-1.646	.519		
.025			-1.378	.353	-1.549	.384	-1.295	.221
.050			-1.070	.233	-1.113	.233	-.890	.105
.100			-.871	.017	-.857	.122	-.760	-.026
.150			-.862	-.123	-.897	-.014	-.764	-.177
.250	-.627		-.838	-.134	-.804	-.143	-.701	-.263
.400	-.780		-.829	-.158	-.818	-.188	-.640	-.312
.550	-.750	-.027	-.767	-.070	-.732	-.093	-.533	-.293
.700	-.752	.046	-.756	.030	-.727	.049	-.412	-.269
.850	-.850	-.142	-.806	.176	-.767	.302	-.317	-.230
.950	-1.038	-.179	-.863	.327	-.886	.415	-.238	-.185

ALPHA = 4.00 DEG Q = 904 N/SQ.M. (18.87 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .195

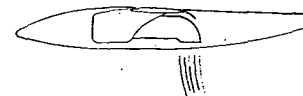
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.058		-1.446		-2.178	
.010			-1.396	.930				
.015					-3.017	.896		
.025			-3.052	.758	-3.008	.767	-2.698	.636
.050			-1.713	.597	-1.917	.604	-1.432	.475
.100			-1.249	.282	-1.416	.338	-1.179	.202
.150			-1.158	.172	-1.239	.216	-1.092	.066
.250	-.768		-1.045	.016	-1.096	.049	-.988	-.118
.400	-.895		-.988	-.057	-.976	-.069	-.840	-.232
.550	-.849	.024	-.892	-.016	-.877	-.043	-.641	-.262
.700	-.822	.020	-.847	.050	-.826	.042	-.504	-.256
.850	-.902	-.209	-.886	.182	-.845	.302	-.391	-.251
.950	-1.035	-.236	-.944	.338	-.957	.410	-.298	-.236

ALPHA = 7.35 DEG Q = 911 N/SQ.M. (19.03 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.817		-4.195		-4.102	
.010			-1.454	.661				
.015					-5.224	.867		
.025			-3.336	.929	-3.685	.894	-3.104	.846
.050			-2.355	.756	-2.523	.772	-2.144	.675
.100			-1.674	.549	-1.886	.533	-1.632	.417
.150			-1.513	.362	-1.623	.395	-1.399	.222
.250	-.890		-1.247	-.175	-1.335	-.165	-1.179	.001
.400	-.975		-1.132	.041	-1.147	.030	-.964	-.143
.550	-.905	.092	-.977	.046	-.966	.024	-.746	-.218
.700	-.875	.059	-.921	.075	-.909	.085	-.589	-.238
.850	-.935	-.234	-.938	.163	-.920	.321	-.436	-.264
.950	-1.048	-.219	-.992	.343	-.995	.419	-.348	-.261

TABLE 13 (C) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.02 DEG

Q = 904 N/SQ.M. (18.87 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.183		-1.645		-2.844	
.010			-1.514	.592				
.015					-2.032	.892		
.025			-2.381	.936	-1.964	.910	-2.381	.875
.050			-2.389	.871	-2.004	.807	-2.401	.719
.100			-2.374	.674	-2.128	.577	-2.424	.502
.150			-2.265	.509	-2.121	.437	-2.417	.332
.250	-1.188		-2.208	.317	-2.063	.260	-2.384	.100
.400	-1.232		-1.811	.181	-1.858	.098	-1.651	-.092
.550	-1.162	.188	-1.279	.165	-1.459	.084	-.883	-.177
.700	-1.021	.127	-1.127	.156	-1.266	.161	-.718	-.218
.850	-1.004	-.168	-1.038	.209	-1.117	.360	-.551	-.276
.950	-1.074	-.147	-1.079	.347	-1.142	.420	-.430	-.303

ALPHA = 11.97 DEG

Q = 902 N/SQ.M. (18.85 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.272		-1.678		-2.913	
.010			-1.546	.458				
.015					-1.822	.846		
.025			-1.960	.926	-1.869	.909	-2.366	.856
.050			-2.077	.900	-1.862	.823	-2.365	.736
.100			-2.167	.753	-1.857	.663	-2.349	.528
.150			-2.180	.602	-1.919	.502	-2.372	.347
.250	-1.516		-2.195	.352	-1.919	.312	-2.436	.134
.400	-1.565		-2.054	.176	-1.986	.154	-2.106	-.055
.550	-1.332	.183	-1.564	.166	-1.824	.114	-1.561	-.148
.700	-1.155	.137	-1.541	.174	-1.558	.170	-.881	-.222
.850	-1.084	-.184	-1.306	.231	-1.352	.373	-.613	-.291
.950	-1.115	-.135	-1.153	.382	-1.212	.448	-.453	-.319

ALPHA = 14.00 DEG

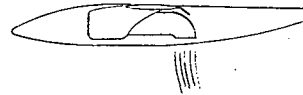
Q = 906 N/SQ.M. (18.91 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.228		-1.762		-2.881	
.010			-1.550	.442				
.015					-1.729	.820		
.025			-1.693	.895	-1.767	.903	-2.343	.861
.050			-1.708	.955	-1.720	.853	-2.284	.785
.100			-1.722	.778	-1.790	.689	-2.312	.569
.150			-1.759	.634	-1.780	.562	-2.291	.397
.250	-1.663		-1.873	.409	-1.854	.382	-2.310	.196
.400	-1.767		-1.922	.229	-1.951	.188	-2.384	-.006
.550	-1.708	.212	-1.911	.201	-1.928	.146	-1.963	-.136
.700	-1.361	.155	-1.767	.193	-1.789	.192	-1.355	-.215
.850	-1.495	-.113	-1.585	.244	-1.642	.385	-.777	-.295
.950	-1.080	-.084	-1.415	.424	-1.381	.456	-.489	-.335

TABLE 13 (C) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 16.00 DEG      Q = 908 N/SQ.M. (18.96 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.326		-1.833		-2.597	
.010			-1.542	.287				
.015					-1.715	.749		
.025			-1.562	.874	-1.706	.890	-2.234	.860
.050			-1.524	.914	-1.701	.877	-2.184	.806
.100			-1.557	.796	-1.752	.733	-2.191	.628
.150			-1.628	.674	-1.729	.610	-2.234	.461
.250	-1.470		-1.632	.465	-1.793	.407	-2.309	.234
.400	-1.672		-1.743	.250	-1.834	.232	-2.277	.019
.550	-1.766	.255	-1.852	.222	-1.860	.170	-2.125	-.117
.700	-1.725	.184	-1.774	.202	-1.843	.203	-1.780	-.209
.850	-1.607	-.073	-1.620	.244	-1.719	.376	-1.188	-.318
.950	-1.230	-.022	-1.530	.437	-1.547	.465	-.664	-.378

ALPHA = 17.98 DEG      Q = 907 N/SQ.M. (18.95 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .195

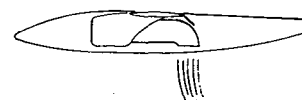
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.444		-1.859		-2.328	
.010			-1.562	.121				
.015					-1.635	.709		
.025			-1.453	.831	-1.656	.883	-2.050	.840
.050			-1.460	.909	-1.599	.899	-2.106	.819
.100			-1.555	.826	-1.639	.779	-2.088	.659
.150			-1.554	.713	-1.642	.663	-2.099	.470
.250	-1.458		-1.547	.498	-1.745	.447	-2.212	.270
.400	-1.619		-1.705	.304	-1.794	.255	-2.166	.041
.550	-1.660	.270	-1.681	.256	-1.823	.189	-2.155	-.121
.700	-1.737	.219	-1.674	.222	-1.816	.196	-1.982	-.230
.850	-1.685	-.080	-1.586	.248	-1.683	.368	-1.495	-.387
.950	-1.438	-.028	-1.582	.433	-1.640	.472	-1.158	-.523

ALPHA = 20.00 DEG      Q = 911 N/SC.M. (19.03 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.553		-1.863		-2.122	
.010			-1.570	-.030				
.015					-1.565	.609		
.025			-1.494	.792	-1.583	.847	-2.027	.844
.050			-1.508	.906	-1.515	.901	-1.973	.842
.100			-1.486	.864	-1.589	.799	-1.994	.678
.150			-1.519	.749	-1.600	.693	-2.015	.531
.250	-1.529		-1.577	.564	-1.621	.509	-1.991	.330
.400	-1.603		-1.644	.335	-1.729	.293	-2.119	.060
.550	-1.682	.309	-1.678	.286	-1.774	.210	-2.148	-.107
.700	-1.698	.244	-1.645	.243	-1.751	.222	-2.063	-.243
.850	-1.705	-.045	-1.607	.271	-1.654	.376	-1.783	-.427
.950	-1.555	.013	-1.643	.447	-1.721	.471	-1.400	-.680

TABLE 13 (D)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 0.00 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.641		.635		.478	
.010			-5.648	.144				
.015					-.972	.029		
.025			-1.108	-.250	-1.047	-.264	-1.060	-.461
.050			-.979	-.298	-.979	-.393	-.917	-.420
.100			-.863	-.523	-.849	-.461	-.788	-.509
.150			-.904	-.597	-.965	-.557	-.808	-.638
.250	-.802		-.904	-.645	-.972	-.655	-.829	-.694
.400	-.899		-.958	-.618	-.952	-.668	-.833	-.714
.550	-.882	-.585	-.909	-.519	-.912	-.519	-.763	-.664
.700	-.892	-.569	-.905	-.364	-.902	-.338	-.681	-.589
.850	-.971	-.638	-.938	-.137	-.919	-.028	-.579	-.575
.950	-1.087	-.608	-.988	.032	-1.047	.108	-.516	-.503

ALPHA = 3.97 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.380		-.390		-.711	
.010			-4.672	.639				
.015					-2.449	.476		
.025			-1.836	.353	-2.272	.305	-1.904	.244
.050			-1.822	.073	-1.884	.101	-1.577	-.022
.100			-1.147	-.097	-1.284	-.104	-1.174	-.165
.150			-.990	-.302	-1.236	-.254	-1.099	-.336
.250	-.847		-1.072	-.437	-1.120	-.371	-1.086	-.474
.400	-.989		-1.049	-.474	-1.075	-.441	-.943	-.573
.550	-.956	-.461	-.960	-.391	-.963	-.378	-.814	-.599
.700	-.923	-.467	-.946	-.216	-.950	-.299	-.692	-.560
.850	-.976	-.666	-.993	-.097	-.966	.022	-.599	-.497
.950	-1.062	-.527	-1.032	.058	-1.089	.141	-.520	-.467

ALPHA = 8.04 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.927		-2.134		-2.557	
.010			-4.173	.647				
.015					-4.097	.661		
.025			-3.487	.634	-3.924	.578	-3.015	.495
.050			-1.981	.453	-2.287	.377	-1.940	.294
.100			-1.614	.148	-1.718	.169	-1.565	.030
.150			-1.489	-.039	-1.524	.002	-1.406	-.122
.250	-.990		-1.239	-.219	-1.323	-.199	-1.274	-.317
.400	-1.056		-1.167	-.354	-1.228	-.364	-1.066	-.471
.550	-1.006	-.394	-1.066	-.317	-1.090	-.337	-.892	-.522
.700	-.982	-.414	-1.016	-.253	-1.026	-.233	-.767	-.518
.850	-1.026	-.649	-1.033	-.128	-1.023	.036	-.623	-.522
.950	-1.083	-.606	-1.060	.077	-1.113	.154	-.528	-.488

TABLE 13 (D) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.03 DEG Q = 228 N/SQ.M. ( 4.77 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.686		-3.639		-4.288	
.010			-3.825	.343				
.015					-5.143	.653		
.025			-3.115	.667	-4.177	.619	-3.653	.563
.050			-2.990	.494	-2.549	.425	-2.266	.412
.100			-1.762	.294	-1.859	.253	-1.776	.129
.150			-1.624	.087	-1.700	.101	-1.562	-.085
.250	-.996		-1.362	-.146	-1.465	-.146	-1.348	-.246
.400	-1.085		-1.219	-.293	-1.279	-.303	-1.075	-.423
.550	-1.035	-.386	-1.069	-.259	-1.112	-.286	-.922	-.490
.700	-.978	-.400	-1.012	-.209	-1.039	-.199	-.764	-.514
.850	-1.015	-.607	-1.019	-.169	-1.032	.055	-.631	-.510
.950	-1.089	-.634	-1.045	.078	-1.102	.172	-.560	-.510

ALPHA = 11.99 DEG Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.262		-1.747		-3.323	
.010			-4.040	.363				
.015					-2.500	.651		
.025			-2.711	.707	-2.240	.637	-2.859	.602
.050			-2.598	.588	-2.317	.482	-2.725	.440
.100			-2.521	.398	-2.169	.264	-2.113	.187
.150			-2.570	.173	-2.310	.138	-2.535	-.024
.250	-1.269		-2.120	-.068	-2.106	-.085	-2.148	-.232
.400	-1.227		-1.275	-.266	-1.701	-.201	-1.418	-.436
.550	-1.142	-.361	-1.224	-.204	-1.231	-.245	-1.009	-.487
.700	-1.074	-.395	-1.108	-.146	-1.166	-.153	-.855	-.521
.850	-1.063	-.579	-1.104	-.102	-1.145	.068	-.743	-.562
.950	-1.077	-.661	-1.108	.116	-1.227	.164	-.665	-.576

ALPHA = 13.98 DEG Q = 220 N/SQ.M. ( 4.60 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .096

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.414		-1.729		-2.903	
.010			-4.879	.304				
.015					-1.951	.626		
.025			-2.280		-2.116	.662	-2.495	.648
.050			-2.288	.598	-2.116	.541	-2.474	.519
.100			-2.259	.447	-2.044	.347	-2.474	.261
.150			-2.316	.254	-2.073	.197	-2.488	.061
.250	-1.450		-2.345	-.011	-1.994	-.021	-2.381	-.160
.400	-1.527		-2.030	-.191	-2.075	-.163	-1.864	-.365
.550	-1.229	-.271	-1.475	-.188	-1.756	-.209	-1.468	-.465
.700	-1.114	-.299	-1.316	-.146	-1.368	-.101	-1.069	-.490
.850	-1.086	-.531	-1.191	-.094	-1.305	.090	-.785	-.514
.950	-1.086	-.569	-1.201	.083	-1.253	.187	-.667	-.535

TABLE 13 (D) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 16.05 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.404		-1.758		-2.819	
.010			-4.949	.240				
.015					-1.827	.649		
.025			-1.855	.677	-1.876	.697	-2.362	.656
.050			-1.966	.663	-1.793	.593	-2.251	.538
.100			-1.737	.496	-1.821	.413	-2.299	.316
.150			-2.077	.330	-1.897	.267	-2.292	.136
.250	-1.758		-2.015	.045	-1.966	.055	-2.313	.076
.400	-1.582		-1.996	-.140	-1.992	-.113	-2.298	-.288
.550	-1.448	-.274	-1.929	-.130	-1.922	-.150	-1.760	-.406
.700	-1.391	-.271	-1.690	-.090	-1.643	-.090	-1.552	-.463
.850	-1.219	-.483	-1.502	-.049	-1.582	.129	-.920	-.520
.950	-1.098	-.503	-1.256	.163	-1.307	.233	-.732	-.560

ALPHA = 18.01 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.095		-1.582		-2.735	
.010			-4.764	.301				
.015					-1.665	.649		
.025			-1.512	.697	-1.554	.732	-2.145	.670
.050			-1.575	.690	-1.776	.670	-2.131	.579
.100			-1.582	.558	-1.686	.496	-2.242	.364
.150			-1.672	.392	-1.735	.357	-2.096	.190
.250	-1.484		-1.707	.132	-1.651	.119	-2.068	-.016
.400	-1.629		-1.733	-.080	-1.787	-.036	-2.218	-.231
.550	-1.683	-.157	-1.700	-.080	-1.794	-.097	-2.063	-.359
.700	-1.578	-.181	-1.669	-.049	-1.723	-.006	-1.673	-.440
.850	-1.296	-.346	-1.538	-.006	-1.585	.176	-1.097	-.528
.950	-1.033	-.379	-1.353	.217	-1.420	.294	-.885	-.585

ALPHA = 20.01 DEG      Q = 225 N/SQ.M. ( 4.70 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.221		-1.591		-2.480	
.010			-4.586	.235				
.015					-1.514	.662		
.025			-1.437	.711	-1.458	.753	-1.864	.704
.050			-1.416	.753	-1.458	.704	-1.850	.641
.100			-1.416	.585	-1.374	.508	-1.794	.431
.150			-1.444	.452	-1.444	.403	-1.920	.249
.250	-1.409		-1.479	.189	.536	.196	-1.899	.026
.400	-1.496		-1.520	-.031	-1.581	.010	-1.954	-.191
.550	-1.561	-.123	-1.578	-.031	-1.598	-.041	-2.069	-.333
.700	-1.591	-.163	-1.581	-.014	-1.645		-1.734	-.431
.850	-1.510	-.364	-1.527	.016	-1.506	.189	-1.364	-.550
.950	-1.354	-.394	-1.479	.298	-1.442	.325	-1.266	-.652



TABLE 14 (A)  
PRESSURE PROFILE ON WING

FURWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 0.00 DEG      Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .283

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.588		.871		.960	
.010			.322	-.215				
.015					-.549	-.317		
.025			-.777	-.654	-.561	-.707	-.580	-.235
.050			-.571	-.653	-.681	-.541	-.501	-.234
.100			-.521	-.873	-.622	-.692	-.468	-.325
.150			-.556	-.957	-.520	-.862	-.502	-.466
.250	-.405		-.543	-1.204	-.547	-.886	-.535	-.532
.400	-.530		-.555	-1.350	-.543	-.976	-.470	-.549
.550	-.468	-1.617	-.459	-1.351	-.456	-.948	-.373	-.474
.700	-.431	-1.799	-.399	-1.231	-.340	-.784	-.245	-.376
.850	-.484	-1.908	-.373	-.961	-.265	-.565	-.157	-.248
.950	-.672	-1.718	-.377	-.600	-.237	-.350	-.105	-.130

ALPHA = 3.96 DEG      Q = 2033 N/SQ.M. (42.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .283

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.977		.771		-.199	
.010			.384	-.603				
.015					-1.780	.480		
.025			-1.418	-.033	-1.718	.092	-1.465	.326
.050			-1.163	-.061	-1.239	-.050	-1.133	.190
.100			-.873	-.470	-.914	-.243	-.859	-.085
.150			-.842	-.781	-.828	-.539	-.762	-.201
.250	-.528		-.742	-1.027	-.770	-.725	-.722	-.348
.400	-.603		-.670	-1.335	-.669	-.912	-.590	-.424
.550	-.519	-1.615	-.525	-1.361	-.521	-.898	-.450	-.427
.700	-.450	-1.640	-.433	-1.209	-.405	-.785	-.305	-.347
.850	-.461	-1.806	-.380	-.956	-.309	-.570	-.205	-.270
.950	-.596	-1.435	-.370	-.568	-.248	-.379	-.125	-.153

ALPHA = 8.02 DEG      Q = 2040 N/SQ.M. (42.61 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .283

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.094		-.983		-2.442	
.010			.380	.994				
.015					-3.346	.909		
.025			-3.013	.620	-3.249	.671	-2.687	.752
.050			-1.712	.359	-1.861	.477	-1.784	.557
.100			-1.288	-.041	-1.501	.042	-1.362	.254
.150			-1.171	-.359	-1.273	-.184	-1.123	.040
.250	-.641		-.969	-.875	-1.042	-.526	-.955	-.159
.400	-.678		-.801	-1.240	-.832	-.731	-.763	-.293
.550	-.558	-1.633	-.619	-1.314	-.617	-.782	-.533	-.349
.700	-.484	-1.697	-.505	-1.129	-.454	-.726	-.375	-.310
.850	-.466	-1.641	-.424	-.908	-.330	-.589	-.249	-.259
.950	-.553	-1.257	-.387	-.569	-.270	-.387	-.162	-.173

TABLE 14 (A) - CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.82 DEG      Q = 2032 N/SQ.M. (42.44 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.398		-2.260		-3.721	
.010			.329	.971				
.015					-4.592	.965		
.025			-3.159	.774	-3.461	.816	-2.828	.882
.050			-2.138	.535	-2.350	.565	-2.095	.663
.100			-1.419	.104	-1.631	.236	-1.503	.386
.150			-1.285	-.246	-1.372	-.067	-1.288	.141
.250	-.686		-1.034	-.790	-1.102	-.386	-1.053	-.074
.400	-.721		-.833	-1.236	-.881	-.704	-.805	-.251
.550	-.588	-1.632	-.635	-1.280	-.657	-.789	-.574	-.307
.700	-.496	-1.677	-.515	-1.151	-.488	-.717	-.403	-.281
.850	-.467	-1.509	-.416	-.895	-.353	-.594	-.262	-.249
.950	-.546	-1.119	-.379	-.573	-.279	-.396	-.170	-.179

ALPHA = 12.01 DEG      Q = 2040 N/SQ.M. (42.61 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .283

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.634		-2.027		-1.493	
.010			.268	.964				
.015					-4.388	.967		
.025			-3.269	.882	-2.174	.884	-1.853	.862
.050			-1.918	.658	-2.295	.605	-1.887	.659
.100			-1.941	.230	-1.984	.284	-1.851	.388
.150			-1.851	-.134	-1.562	.017	-1.723	.186
.250	-.773		-1.058	-.693	-1.239	-.356	-1.335	-.042
.400	-.759		-.868	-1.194	-.947	-.670	-1.043	-.238
.550	-.627	-1.542	-.672	-1.315	-.712	-.774	-.769	-.310
.700	-.536	-1.636	-.547	-1.150	-.582	-.731	-.497	-.297
.850	-.478	-1.481	-.432	-.923	-.400	-.668	-.573	-.307
.950	-.511	-1.039	-.428	-.599	-.427	-.494	-.322	-.265

ALPHA = 14.06 DEG      Q = 2033 N/SQ.M. (42.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.102		-.470		-1.419	
.010			.239	.969				
.015					-1.404	.946		
.025			-1.206	.853	-1.125	.801	-1.335	.855
.050			-1.265	.618	-1.223	.569	-1.352	.650
.100			-1.215	.250	-1.124	.264	-1.402	.387
.150			-1.213	-.134	-1.262	.008	-1.352	.192
.250	-.869		-1.284	-.712	-1.316	-.377	-1.415	-.049
.400	-.941		-1.181	-1.160	-1.145	-.688	-1.288	-.248
.550	-.807	-1.635	-1.056	-1.319	-1.043	-.809	-1.114	-.338
.700	-.694	-1.637	-.900	-1.167	-.892	-.798	-.975	-.363
.850	-.671	-1.549	-.711	-.994	-.701	-.788	-.799	-.374
.950	-.607	-1.122	-.564	-.695	-.663	-.657	-.640	-.450

TABLE 14 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 16.00 DEG Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.197		-.355		-1.411	
.010			.223	.960				
.015					-.861	.958		
.025			-.844	.879	-.837	.834	-1.155	.864
.050			-.864	.678	-.867	.608	-1.234	.687
.100			-.807	.287	-.871	.305	-1.181	.441
.150			-.796	-.073	-.865	.053	-1.199	.225
.250	-.883		-.911	-.629	-.906	-.328	-1.197	-.021
.400	-.893		-.948	-1.159	-1.065	-.712	-1.286	-.249
.550	-.937	-1.586	-.984	-1.295	-1.017	-.841	-1.243	-.370
.700	-.999	-1.640	-.953	-1.230	-1.010	-.884	-1.145	-.415
.850	-.917	-1.505	-.906	-1.100	-.931	-.879	-1.007	-.461
.950	-.721	-1.095	-.743	-.880	-.861	-.802	-.882	-.491

ALPHA = 18.00 DEG Q = 2037 N/SQ.M. (42.54 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.018		-.417		-1.391	
.010			.213	.931				
.015					-.851	.969		
.025			-.749	.945	-.820	.878	-1.132	.886
.050			-.773	.712	-.842	.680	-1.164	.733
.100			-.770	.374	-.811	.397	-1.139	.466
.150			-.777	.005	-.832	.128	-1.116	.286
.250	-.793		-.814	-.564	-.854	-.271	-1.141	.022
.400	-.885		-.898	-1.132	-.942	-.665	-1.215	-.246
.550	-.937	-1.499	-.963	-1.276	-.973	-.835	-1.220	-.375
.700	-1.017	-1.531	-.958	-1.239	-.976	-.905	-1.202	-.436
.850	-.957	-1.567	-.916	-1.148	-.970	-.913	-1.095	-.543
.950	-.878	-1.125	-.836	-.937	-.912	-.886	-.997	-.629

ALPHA = 19.98 DEG Q = 2038 N/SQ.M. (42.56 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .281

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.150		-.560		-1.459	
.010			.201	.862				
.015					-.800	.978		
.025			-.754	.970	-.781	.926	-1.081	.913
.050			-.792	.799	-.784	.734	-1.098	.779
.100			-.733	.429	-.737	.451	-1.041	.529
.150			-.755	.102	-.805	.178	-1.058	.333
.250	-.794		-.763	-.494	-.840	-.220	-1.087	.060
.400	-.924		-.907	-1.117	-.904	-.620	-1.089	-.197
.550	-.937	-1.537	-.945	-1.284	-.965	-.832	-1.158	-.359
.700	-.974	-1.485	-.962	-1.227	-.975	-.903	-1.176	-.452
.850	-1.008	-1.424	-.922	-1.133	-.977	-.913	-1.114	-.578
.950	-.954	-1.124	-.857	-.963	-.918	-.874	-1.079	-.701

TABLE 14 (B)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = .01 DEG Q = 911 N/SQ.M. (19.02 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .188

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.663		-.080		.950	
.010			-.718	-1.634				
.015					.138	-1.497		
.025			-.208	-1.948	-.120	-1.568	-.407	-.891
.050			-.213	-1.623	-.172	-1.353	-.243	-.656
.100			-.284	-1.570	-.279	-1.322	-.298	-.632
.150			-.443	-1.831	-.391	-1.350	-.393	-.616
.250	-.346		-.424	-1.912	-.396	-1.452	-.391	-.773
.400	-.436		-.461	-2.012	-.461	-1.476	-.421	-.720
.550	-.395	-3.608	-.404	-2.182	-.388	-1.265	-.343	-.612
.700	-.362	-3.374	-.379	-1.831	-.335	-1.064	-.284	-.505
.850	-.412	-2.699	-.374	-1.352	-.289	-.722	-.166	-.326
.950	-.648	-2.000	-.425	-.795	-.270	-.453	-.130	-.176

ALPHA = 3.93 DEG Q = 909 N/SQ.M. (19.00 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .188

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.675		.911		.789	
.010			-.650	-.377				
.015					-.872	-.758		
.025			-.836	-.704	-.671	-.607	-1.075	-.060
.050			-.631	-.908	-.692	-.716	-.740	-.030
.100			-.576	-1.120	-.626	-.837	-.659	-.316
.150			-.631	-1.409	-.628	-.986	-.631	-.479
.250	-.444		-.621	-1.720	-.652	-1.214	-.623	-.592
.400	-.515		-.588	-2.017	-.592	-1.335	-.531	-.602
.550	-.442	-3.319	-.471	-1.960	-.474	-1.223	-.419	-.557
.700	-.394	-2.992	-.388	-1.813	-.374	-1.042	-.286	-.464
.850	-.421	-2.625	-.390	-1.238	-.299	-.721	-.198	-.326
.950	-.609	-1.743	-.415	-.727	-.286	-.442	-.146	-.180

ALPHA = 8.06 DEG Q = 906 N/SQ.M. (18.92 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.965		.786		-.685	
.010			-.544	.563				
.015					-.1720	.360		
.025			-1.753	.057	-1.891	.096	-1.851	.429
.050			-1.306	-.289	-1.266	-.160	-1.461	.219
.100			-.943	-.689	-1.004	-.440	-1.118	.052
.150			-.864	-.965	-.925	-.751	-.906	-.153
.250	-.525		-.804	-1.448	-.828	-1.064	-.837	-.376
.400	-.590		-.661	-2.023	-.708	-1.211	-.669	-.467
.550	-.482	-3.170	-.535	-2.135	-.563	-1.197	-.501	-.503
.700	-.398	-2.905	-.443	-1.800	-.428	-1.020	-.353	-.420
.850	-.406	-2.475	-.402	-1.191	-.338	-.713	-.238	-.332
.950	-.546	-1.510	-.419	-.713	-.301	-.460	-.172	-.212

TABLE 14 (B)- CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.99 DEG      Q = 908 N/SQ.M. (18.95 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .188

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.790		.321		-1.885	
.010			-.458	.867				
.015					-2.819	.596		
.025			-2.048	.269	-2.284	.308	-2.588	.705
.050			-1.501	-.045	-1.626	.094	-1.712	.424
.100			-1.111	-.508	-1.283	-.293	-1.278	.144
.150			-1.033	-.904	-1.100	-.616	-1.114	-.062
.250	-.583		-.854	-1.356	-.942	-.910	-.935	-.269
.400	-.617		-.732	-1.906	-.777	-1.137	-.732	-.424
.550	-.504	-2.963	-.570	-2.062	-.584	-1.123	-.528	-.441
.700	-.408	-2.874	-.463	-1.714	-.440	-.993	-.370	-.390
.850	-.403	-2.530	-.420	-1.170	-.340	-.719	-.253	-.310
.950	-.524	-1.403	-.428	-.689	-.302	-.470	-.176	-.223

ALPHA = 12.01 DEG      Q = 906 N/SQ.M. (18.93 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.453		-.633		-3.030	
.010			-.419	.973				
.015					-3.468	.838		
.025			-2.806	.565	-3.129	.617	-2.980	.874
.050			-1.733	.193	-1.966	.231	-2.057	.599
.100			-1.257	-.338	-1.403	-.112	-1.436	.234
.150			-1.189	-.744	-1.214	-.442	-1.268	.057
.250	-.614		-.936	-1.276	-1.042	-.789	-1.021	-.174
.400	-.647		-.780	-1.877	-.825	-1.125	-.771	-.368
.550	-.524	-3.611	-.585	-2.106	-.628	-1.123	-.567	-.394
.700	-.427	-3.250	-.475	-1.689	-.466	-.967	-.397	-.358
.850	-.387	-2.113	-.417	-1.183	-.350	-.711	-.265	-.291
.950	-.493	-1.317	-.426	-.664	-.307	-.454	-.186	-.220

ALPHA = 14.01 DEG      Q = 906 N/SQ.M. (18.91 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.362		-2.243		-5.103	
.010			-.447	.993				
.015					-4.692	.953		
.025			-3.645	.739	-3.998	.703	-3.356	.946
.050			-2.083	.402	-2.349	.426	-2.413	.694
.100			-1.475	-.170	-1.649	.045	-1.729	.414
.150			-1.289	-.604	-1.406	-.287	-1.418	.160
.250	-.654		-1.021	-1.212	-1.155	-.693	-1.138	-.094
.400	-.659		-.814	-1.900	-.891	-1.039	-.835	-.289
.550	-.523	-3.328	-.612	-2.050	-.646	-1.069	-.601	-.354
.700	-.413	-3.003	-.483	-1.705	-.489	-.940	-.423	-.339
.850	-.372	-2.110	-.428	-1.152	-.362	-.714	-.289	-.285
.950	-.429	-1.142	-.423	-.659	-.309	-.466	-.208	-.215

TABLE 14 (E) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 16.01 DEG

Q = 908 N/SC.M. (18.96 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.987		-2.518		-1.572	
.010			-.501	.946				
.015					-5.036	.983		
.025			-3.523	.859	-3.894	.833	-1.518	.870
.050			-2.362	.481	-2.336	.514	-1.792	.655
.100			-1.603	-.041	-1.591	.099	-1.624	.368
.150			-1.365	-.479	-1.450	-.227	-1.530	.146
.250	-.652		-1.043	-1.135	-1.176	-.652	-1.490	-.095
.400	-.654		-.822	-1.831	-.943	-.997	-1.096	-.302
.550	-.507	-3.324	-.602	-2.026	-.700	-1.052	-.787	-.376
.700	-.402	-3.037	-.470	-1.658	-.599	-.953	-.632	-.366
.850	-.356	-1.942	-.410	-1.108	-.414	-.755	-.477	-.358
.950	-.412	-1.104	-.409	-.645	-.342	-.516	-.394	-.313

ALPHA = 18.01 DEG

Q = 907 N/SC.M. (18.95 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.068		-1.184		-1.224	
.010			-.498	.976				
.015					-2.920	.961		
.025			-1.839	.820	-1.620	.804	-1.193	.879
.050			-1.870	.495	-1.646	.478	-1.085	.664
.100			-1.645	-.017	-1.481	.110	-1.150	.384
.150			-1.620	-.460	-1.499	-.219	-1.045	.184
.250	-.733		-1.235	-1.156	-1.256	-.623	-1.297	-.074
.400	-.761		-.921	-1.876	-.989	-.975	-1.208	-.309
.550	-.555	-3.302	-.754	-2.011	-.947	-1.053	-1.087	-.396
.700	-.468	-2.989	-.600	-1.701	-.709	-.975	-.903	-.394
.850	-.368	-1.912	-.544	-1.137	-.593	-.794	-.770	-.376
.950	-.430	-.995	-.453	-.689	-.580	-.586	-.605	-.373

ALPHA = 20.04 DEG

Q = 906 N/SC.M. (18.93 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.298		-.345		-1.127	
.010			-.461	1.011				
.015					-1.151	.933		
.025			-1.061	.803	-.979	.736	-1.061	.891
.050			-1.198	.531	-.998	.465	-.972	.697
.100			-1.183	.006	-1.066	.121	-.986	.436
.150			-1.106	-.446	-1.181	-.230	-1.051	.222
.250	-.906		-1.252	-1.123	-1.073	-.610	-1.078	-.049
.400	-.934		-1.097	-1.805	-1.065	-1.010	-1.155	-.283
.550	-.742	-3.374	-.984	-1.968	-.961	-1.070	-1.128	-.385
.700	-.821	-2.955	-.877	-1.703	-.882	-1.025	-1.053	-.432
.850	-.441	-1.910	-.690	-1.177	-.749	-.865	-.941	-.513
.950	-.477	-1.072	-.568	-.702	-.595	-.699	-.817	-.572

TABLE 14 (C)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.01 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .095

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-4.729		-4.715		-.794	
.010			-4.095	-5.185				
.015					.978	-4.435		
.025			.617	-4.729	.767	-4.763	.678	-2.479
.050			.378	-2.969	.487	-2.663	.378	-1.926
.100			.126	-2.581	.181	-2.342	.181	-1.354
.150			-.044	-2.554	.003	-2.281	.024	-1.354
.250	-.215		-.174	-2.553	-.140	-2.169	-.160	-1.273
.400	-.255		-.295	-2.563	-.255	-2.020	-.262	-1.112
.550	-.236	-5.313	-.265	-3.181	-.262	-1.773	-.236	-.897
.700	-.246	-7.517	-.285	-2.989	-.275	-1.363	-.189	-.632
.850	-.302	-4.133	-.361	-1.842	-.289	-.867	-.170	-.421
.950	-.560	-2.315	-.536	-1.422	-.368	-.642	-.186	-.252

ALPHA = 3.93 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .095

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.193		-1.293		.616	
.010			-3.972	-2.984				
.015					.582	-2.725		
.025			.262	-2.786	.412	-2.520	.235	-1.259
.050			.044	-2.213	.207	-2.050	-.024	-1.170
.100			-.059	-2.070	-.059	-1.715	-.134	-.979
.150			-.188	-2.125	-.127	-1.859	-.134	-1.013
.250	-.256		-.290	-2.362	-.243	-1.932	-.270	-.984
.400	-.290		-.333	-2.868	-.333	-1.866	-.303	-.878
.550	-.240	-7.664	-.286	-3.453	-.280	-1.681	-.250	-.769
.700	-.220	-8.543	-.277	-3.208	-.253	-1.304	-.174	-.610
.850	-.257	-4.051	-.333	-1.711	-.243	-.835	-.115	-.346
.950	-.429	-1.628	-.445	-1.298	-.273	-.501	-.111	-.187

ALPHA = 8.04 DEG      Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.322		.320			
.010			-3.843	-1.598				
.015					.125	-1.883		
.025			-.175	-1.681	-.356	-1.674	-.342	-.524
.050			-.266	-1.430	-.196	-1.598	-.384	-.586
.100			-.287	-1.688	-.287	-1.444	-.405	-.593
.150			-.356	-1.835	-.370	-1.570	-.412	-.782
.250	-.273		-.335	-2.185	-.405	-1.763	-.489	-.840
.400	-.299		-.374	-2.777	-.404	-1.881	-.407	-.793
.550	-.232	-7.898	-.286	-3.449	-.323	-1.675	-.316	-.701
.700	-.171	-7.695	-.255	-2.686	-.282	-1.357	-.238	-.546
.850	-.178	-2.787	-.299	-1.757	-.232	-.860	-.113	-.343
.950	-.414	-1.442	-.360	-.979	-.255	-.475	-.086	-.144

TABLE 14 (C) - CONTINUED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 10.04 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.399		.642		.920	
.010			-3.514	-.762				
.015					-.011	-1.227		
.025			-.546	-1.248	-.512	-1.054	-.637	-.137
.050			-.359	-1.366	-.414	-1.082	-.553	-.338
.100			-.366	-1.353	-.387	-1.248	-.505	-.456
.150			-.512	-1.714	-.414	-1.415	-.470	-.581
.250	-.275		-.428	-2.116	-.408	-1.615	-.540	-.708
.400	-.311		-.392	-2.746	-.426	-1.746	-.405	-.712
.550	-.240	-8.146	-.304	-3.551	-.308	-1.604	-.291	-.634
.700	-.170	-8.183	-.244	-2.945	-.244	-1.268	-.203	-.479
.850	-.190	-2.753	-.267	-1.638	-.203	-.779	-.079	-.345
.950	-.324	-1.419	-.365	-.813	-.196	-.409	-.052	-.089

ALPHA = 12.00 DEG      Q = 225 N/SQ.M. ( 4.70 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.893				.718	
.010			-3.354	-.101				
.015					-.710	-.367		
.025			-.878	-.773	-.745	-.871	-1.059	.032
.050			-.731	-.912	-.703	-.843	-.850	-.129
.100			-.542	-1.241	-.556	-.940	-.661	-.213
.150			-.556	-1.528	-.556	-1.248	-.640	-.465
.250	-.311		-.479	-1.920	-.549	-1.442	-.556	-.590
.400	-.343		-.455	-2.785	-.475	-1.638	-.465	-.651
.550	-.254	-8.775	-.346	-3.358	-.370	-1.571	-.312	-.556
.700	-.170	-6.014	-.261	-2.819	-.271	-1.275	-.170	-.455
.850	-.173	-2.809	-.258	-1.611	-.190	-.770	-.088	-.329
.950	-.360	-1.147	-.339	-.936	-.193	-.444	-.034	-.102

ALPHA = 14.00 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.029				-.528	
.010			-3.168	.035				
.015					-1.076	-.277		
.025			-1.090	-.507	-1.153	-.673	-1.813	.348
.050			-.819	-.479	-.917	-.479	-1.243	.140
.100			-.757	-.972	-.799	-.854	-.875	-.152
.150			-.673	-1.382	-.722	-1.076	-.750	-.312
.250	-.382		-.597	-1.901	-.632	-1.419	-.673	-.513
.400	-.409		-.510	-2.804	-.577	-1.608	-.543	-.644
.550	-.304	-8.739	-.375	-3.548	-.426	-1.497	-.368	-.577
.700	-.223	-9.032	-.318	-2.665	-.294	-1.325	-.247	-.463
.850	-.213	-2.817	-.308	-1.588	-.227	-.783	-.170	-.341
.950	-.382	-1.099	-.382	-.884	-.247	-.490	-.112	-.237



TABLE 14 (C) --CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 16.08 DEG      Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.977		.657		-1.066	
.010			-3.046	.629				
.015					-1.902	.287		
.025			-1.554	-.013	-1.826	-.229	-2.000	.496
.050			-1.303	-.417	-1.324	-.403	-1.826	.343
.100			-.898	-.787	-1.003	-.619	-.982	-.020
.150			-.815	-1.087	-.870	-.954	-.912	-.243
.250	-.424		-.682	-1.708	-.759	-1.303	-.815	-.424
.400	-.451		-.573	-2.787	-.627	-1.529	-.607	-.590
.550	-.329	-9.625	-.417	-3.426	-.458	-1.550	-.431	-.552
.700	-.242	-8.333	-.316	-3.054	-.350	-1.215	-.282	-.438
.850	-.218	-1.938	-.306	-1.435	-.262	-.799	-.184	-.346
.950	-.363	-1.228	-.357	-.769	-.258	-.478	-.133	-.235

ALPHA = 18.01 DEG      Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.873		.106		-2.216	
.010			-2.899	.734				
.015					-2.669	.462		
.025			-2.042	.239	-2.167	.022	-2.899	.650
.050			-1.630	-.124	-1.784	-.180	-1.811	.406
.100			-1.044	-.612	-1.191	-.508	-1.261	.036
.150			-.940	-.856	-1.044	-.835	-1.107	-.236
.250	-.487		-.773	-1.516	-.870	-1.199	-.947	-.438
.400	-.489		-.627	-2.689	-.702	-1.516	-.709	-.587
.550	-.364	-8.743	-.472	-3.450	-.523	-1.523	-.506	-.567
.700	-.273	-7.949	-.357	-2.838	-.391	-1.331	-.350	-.462
.850	-.229	-2.277	-.344	-1.543	-.289	-.840	-.242	-.360
.950	-.374	-.837	-.418	-.935	-.296	-.492	-.188	-.296

ALPHA = 20.00 DEG      Q = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.363		-.053		-3.404	
.010			-2.705	.986				
.015					-3.051	.778		
.025			-2.552	.488	-2.656	.418	-3.570	.841
.050			-1.694	-.211	-1.929	.134	-1.922	.557
.100			-1.188	-.399	-1.320	-.302	-1.493	.238
.150			-1.064	-.780	-1.126	-.627	-1.223	-.046
.250	-.468		-.814	-1.450	-.911	-1.068	-.980	-.269
.400	-.497		-.651	-2.638	-.722	-1.390	-.722	-.436
.550	-.356	-9.335	-.463	-3.152	-.524	-1.376	-.490	-.457
.700	-.248	-8.999	-.359	-2.920	-.376	-1.188	-.336	-.416
.850	-.218	-2.514	-.336	-1.595	-.275	-.792	-.225	-.309
.950	-.322	-1.088	-.386	-.910	-.245	-.457	-.181	-.235

TABLE 15 (A)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = .00 DEG Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.742		.916		.967	
.010			.710	-.206				
.015					-.235	-.237		
.025			-.335	-.330	-.397	-.407	-.294	-.179
.050			-.328	-.176	-.450	-.263	-.235	-.158
.100			-.299	-.393	-.326	-.294	-.291	-.250
.150			-.345	-.412	-.355	-.339	-.274	-.263
.250	-.273		-.374	-.393	-.364	-.289	-.345	-.350
.400	-.342		-.381	-.326	-.358	-.314	-.326	-.310
.550	-.277	-.200	-.283	-.221	-.270	-.240	-.231	-.252
.700	-.208	-.134	-.183	-.184	-.169	-.156	-.137	-.151
.850	-.145	-.283	-.117	-.212	-.060	-.087	-.030	-.042
.950	-.103	-.090	-.060	-.099	.002	-.003	.030	.049

ALPHA = 3.91 DEG Q = 2845 N/SQ.M. (59.43 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.988		.723		.136	
.010			.722	.601				
.015					-1.387	.595		
.025			-1.161	.318	-1.358	.338	-1.159	.373
.050			-.801	.199	-.911	.229	-.803	.198
.100			-.644	-.008	-.633	.097	-.620	.100
.150			-.592	-.120	-.617	.017	-.584	-.060
.250	-.371		-.557	-.157	-.543	-.129	-.531	-.157
.400	-.415		-.484	-.210	-.472	-.174	-.430	-.194
.550	-.318	-.089	-.334	-.139	-.338	-.159	-.299	-.163
.700	-.224	-.085	-.233	-.150	-.212	-.126	-.173	-.117
.850	-.146	-.344	-.132	-.228	-.087	-.083	-.060	-.056
.950	-.090	-.155	-.061	-.134	-.005	-.014	.029	.043

ALPHA = 8.05 DEG Q = 2842 N/SQ.M. (59.35 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.204		-.868		-1.975	
.010			.683	1.003				
.015					-2.797	.951		
.025			-2.568	.835	-2.593	.643	-2.463	.816
.050			-1.521	.618	-1.619	.612	-1.562	.595
.100			-1.019	.379	-1.155	.426	-1.066	.372
.150			-.960	.225	-.981	.256	-.904	.239
.250	-.493		-.730	.054	-.788	.105	-.755	.075
.400	-.485		-.600	-.027	-.619	-.016	-.568	-.054
.550	-.360	-.026	-.409	-.040	-.423	-.050	-.390	-.078
.700	-.246	-.068	-.263	-.074	-.259	-.045	-.229	-.051
.850	-.154	-.377	-.152	-.208	-.117	-.038	-.102	-.015
.950	-.093	-.258	-.074	-.135	-.034	.003	-.013	.021

TABLE 15 (A) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.99 DEG Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.610		-2.357		-3.775	
.010			.564	.938				
.015					-4.341	.978		
.025			-2.605	.961	-2.781	.918	-2.588	.924
.050			-1.792	.736	-2.002	.732	-1.799	.732
.100			-1.244	.559	-1.473	.550	-1.286	.474
.150			-1.045	.366	-1.160	.372	-1.042	.340
.250	-.526		-.810	.192	-.892	.194	-.874	.140
.400	-.520		-.643	.017	-.677	.073	-.610	.012
.550	-.391	.004	-.430	.018	-.448	-.003	-.415	-.040
.700	-.268	-.067	-.278	-.045	-.274	-.018	-.245	-.023
.850	-.170	-.383	-.153	-.186	-.122	-.031	-.108	-.011
.950	-.110	-.274	-.081	-.132	-.033	-.004	-.016	.016

ALPHA = 12.00 DEG Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.385		-.146		-.854	
.010			.550	.991				
.015					-1.033	.948		
.025			-1.121	.895	-.872	.834	-1.106	.819
.050			-.971	.739	-.872	.692	-.997	.652
.100			-.982	.543	-.957	.500	-1.064	.438
.150			-.814	.352	-.915	.346	-1.063	.283
.250	-.630		-.822	.148	-.957	.163	-1.065	.102
.400	-.659		-.885	.005	-.895	.018	-.951	-.028
.550	-.515	-.017	-.750	-.032	-.749	-.052	-.733	-.089
.700	-.572	-.078	-.592	-.098	-.584	-.092	-.660	-.095
.850	-.314	-.417	-.360	-.321	-.375	-.155	-.461	-.127
.950	-.176	-.341	-.295	-.250	-.367	-.222	-.246	-.196

ALPHA = 14.02 DEG Q = 2842 N/SQ.M. (59.35 LBF/SQ.FT.) EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.417		.033		-.855	
.010			.545	.984				
.015					-.583	.962		
.025			-.576	.920	-.584	.858	-.926	.840
.050			-.532	.768	-.564	.704	-.901	.664
.100			-.516	.557	-.553	.514	-.857	.460
.150			-.566	.389	-.574	.365	-.892	.306
.250	-.524		-.570	.184	-.675	.178	-.902	-.131
.400	-.665		-.650	-.005	-.682	.015	-.910	-.032
.550	-.698	-.032	-.677	-.040	-.654	-.073	-.903	-.110
.700	-.701	-.101	-.741	-.125	-.689	-.130	-.816	-.147
.850	-.659	-.513	-.661	-.369	-.637	-.218	-.688	-.207
.950	-.516	-.449	-.575	-.430	-.564	-.350	-.506	-.266

TABLE 15 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.99 DEG

Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.233		-.097		-.888	
.010			.517	.945				
.015					-.528	.972		
.025			-.515	.951	-.532	.893	-.869	.881
.050			-.529	.835	-.521	.752	-.894	.714
.100			-.528	.644	-.529	.576	-.849	.514
.150			-.539	.486	-.549	.431	-.791	.347
.250	-.554		-.563	.234	-.565	.223	-.855	.158
.400	-.610		-.619	.027	-.626	.049	-.883	-.021
.550	-.669	-.012	-.656	-.023	-.659	-.058	-.895	-.117
.700	-.695	-.124	-.682	-.143	-.643	-.137	-.850	-.171
.850	-.729	-.577	-.661	-.403	-.644	-.269	-.767	-.255
.950	-.649	-.484	-.603	-.461	-.587	-.397	-.664	-.328

ALPHA = 18.02 DEG

Q = 2843 N/SQ.M. (59.37 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.083		-.263		-.992	
.010			.484	.867				
.015					-.529	.978		
.025			-.547	.987	-.516	.934	-.771	.897
.050			-.555	.874	-.539	.800	-.776	.764
.100			-.539	.711	-.517	.632	-.794	.553
.150			-.565	.533	-.539	.477	-.781	.386
.250	-.563		-.563	.280	-.562	.286	-.816	.188
.400	-.651		-.625	.078	-.635	.089	-.818	.010
.550	-.675	-.001	-.678	.006	-.673	-.022	-.827	-.102
.700	-.729	-.149	-.674	-.127	-.686	-.125	-.850	-.178
.850	-.721	-.626	-.686	-.416	-.668	-.262	-.844	-.305
.950	-.685	-.538	-.663	-.482	-.619	-.405	-.790	-.447

ALPHA = 20.00 DEG

Q = 2845 N/SQ.M. (59.43 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.177		-.395		-1.040	
.010			.425	.731				
.015					-.541	.975		
.025			-.590	.986	-.536	.954	-.731	.916
.050			-.598	.929	-.535	.869	-.744	.802
.100			-.577	.760	-.545	.693	-.732	.599
.150			-.586	.600	-.557	.560	-.780	.440
.250	-.627		-.620	.343	-.576	.357	-.773	.255
.400	-.675		-.678	.121	-.634	.125	-.826	.037
.550	-.723	.015	-.703	.041	-.685	.008	-.843	-.090
.700	-.753	-.149	-.719	-.111	-.703	-.098	-.874	-.182
.850	-.764	-.644	-.732	-.415	-.672	-.257	-.878	-.325
.950	-.722	-.565	-.712	-.499	-.605	-.402	-.817	-.476

TABLE 15 (B)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.02 DEG Q = 2033 N/SQ.M. (42.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.813		.984		.892	
.010			.564	.191				
.015					-.429	.150		
.025			-.490	-.376	-.590	-.205	-.487	-.072
.050			-.469	-.297	-.590	-.160	-.523	-.160
.100			-.453	-.394	-.437	-.287	-.410	-.202
.150			-.487	-.415	-.482	-.312	-.404	-.258
.250	-.383		-.470	-.517	-.439	-.371	-.452	-.318
.400	-.463		-.458	-.506	-.481	-.467	-.415	-.353
.550	-.416	-.395	-.407	-.470	-.400	-.425	-.311	-.306
.700	-.360	-.485	-.326	-.519	-.278	-.386	-.185	-.215
.850	-.365	-1.030	-.295	-.681	-.198	-.326	-.102	-.128
.950	-.399	-.775	-.290	-.487	-.155	-.215	-.032	-.028

ALPHA = 3.96 DEG Q = 2035 N/SQ.M. (42.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.994		.342		-.147	
.010			.636	.828				
.015					-1.800	.682		
.025			-1.554	.407	-1.495	.485	-1.364	.490
.050			-1.133	.329	-1.253	.288	-1.186	.327
.100			-.819	.039	-.816	.143	-.837	.122
.150			-.737	-.124	-.861	-.095	-.717	-.018
.250	-.481		-.701	-.275	-.695	-.144	-.666	-.147
.400	-.560		-.607	-.402	-.623	-.344	-.536	-.222
.550	-.472	-.417	-.471	-.375	-.482	-.321	-.399	-.226
.700	-.409	-.515	-.388	-.476	-.362	-.336	-.247	-.174
.850	-.398	-1.128	-.339	-.697	-.241	-.320	-.141	-.125
.950	-.439	-.878	-.314	-.501	-.185	-.236	-.054	-.045

ALPHA = 8.02 DEG Q = 2039 N/SC.M. (42.59 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.390		-1.653		-3.059	
.010			.582	1.003				
.015					-3.795	1.003		
.025			-2.973	.871	-3.198	.899	-2.498	.883
.050			-1.665	.643	-2.009	.659	-1.697	.673
.100			-1.269	.426	-1.343	.440	-1.262	.419
.150			-1.107	.185	-1.172	.257	-1.058	.210
.250	-.594		-.879	-.011	-.936	.059	-.946	.030
.400	-.646		-.743	-.212	-.781	-.164	-.675	-.101
.550	-.538	-.293	-.572	-.294	-.568	-.235	-.475	-.147
.700	-.462	-.556	-.452	-.410	-.417	-.272	-.314	-.117
.850	-.432	-1.140	-.375	-.681	-.283	-.280	-.181	-.099
.950	-.456	-.951	-.335	-.515	-.212	-.233	-.083	-.057

TABLE 15 (B) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.98 DEG      Q = 2034 N/SQ.M. (42.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.983		-3.230		-4.879	
.010			.503	.884				
.015					-4.943	.983		
.025			-3.300		-3.595	.981	-3.246	.961
.050			-2.093	.825	-2.345	.808	-2.239	.801
.100			-1.449	.551	-1.638	.547	-1.523	.533
.150			-1.259	.382	-1.360	.386	-1.186	.348
.250	-.658		-.998	.073	-1.069	.134	-.995	.163
.400	-.678		-.813	-.172	-.841	-.079	-.751	-.032
.550	-.571	-.304	-.607	-.231	-.620	-.192	-.520	-.113
.700	-.481	-.502	-.471	-.393	-.441	-.247	-.344	-.104
.850	-.442	-1.168	-.393	-.674	-.301	-.276	-.197	-.104
.950	-.479	-.986	-.352	-.532	-.222	-.237	-.107	-.066

ALPHA = 11.96 DEG      Q = 2038 N/SQ.M. (42.56 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-.105		-.618		-1.566	
.010			.490	.974				
.015					-1.295	1.008		
.025			-1.173	.963	-1.299	.920	-1.517	.904
.050			-1.238	.811	-1.098	.743	-1.569	.732
.100			-1.364	.549	-1.274	.534	-1.511	.498
.150			-1.470	.375	-1.183	.354	-1.442	.310
.250	-.838		-1.213	.081	-1.261	.131	-1.406	.118
.400	-.875		-1.089	-.155	-1.133	-.087	-1.152	-.057
.550	-.634	-.277	-.751	-.244	-1.010	-.209	-.926	-.136
.700	-.644	-.504	-.631	-.418	-.732	-.303	-.613	-.154
.850	-.474	-1.185	-.629	-.736	-.601	-.375	-.489	-.186
.950	-.500	-.986	-.503	-.605	-.497	-.410	-.341	-.181

ALPHA = 14.00 DEG      Q = 2039 N/SQ.M. (42.59 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.018		-.464		-1.677	
.010			.488	.949				
.015					-.997	1.010		
.025			-.968	.980	-.980	.943	-1.367	.925
.050			-.858	.839	-.943	.782	-1.366	.771
.100			-.820	.602	-.963	.564	-1.363	.531
.150			-.567	.421	-1.044	.402	-1.350	.357
.250	-.810		-.950	.132	-1.037	.152	-1.417	.149
.400	-.932		-1.047	-.163	-1.117	-.071	-1.370	-.037
.550	-.871	-.301	-1.043	-.259	-1.086	-.214	-1.178	-.136
.700	-.859	-.554	-.955	-.440	-1.039	-.334	-.919	-.177
.850	-.777	-1.280	-.823	-.802	-.912	-.466	-.641	-.240
.950	-.663	-1.075	-.732	-.740	-.708	-.554	-.494	-.305

TABLE 15 (B)-- CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.98 DEG      Q = 2036 N/SQ.M. (42.53 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.005		-.535		-1.597	
.010			.437	.925				
.015					-.855	1.009		
.025			-.793		-.885	.976	-1.247	.946
.050			-.756	.876	-.823	.813	-1.222	.757
.100			-.785	.670	-.860	.608	-1.264	.566
.150			-.798	.496	-.830	.437	-1.182	.355
.250	-.794		-.834	.165	-.953	.197	-1.247	.187
.400	-.844		-.883	-.105	-.992	-.040	-1.367	-.013
.550	-.901	-.282	-.933	-.233	-1.031	-.202	-1.256	-.149
.700	-.902	-.519	-.936	-.452	-1.022	-.350	-1.095	-.215
.850	-.879	-1.295	-.915	-.862	-.939	-.534	-.871	-.286
.950	-.807	-1.133	-.790	-.841	-.849	-.662	-.738	-.400

ALPHA = 17.96 DEG      Q = 2041 N/SQ.M. (42.62 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.132		-.644		-1.567	
.010			.400	.843				
.015					-.811	1.003		
.025			-.738		-.826	.993	-1.141	.950
.050			-.752	.933	-.819	.867	-1.182	.847
.100			-.741	.741	-.813	.670	-1.109	.612
.150			-.755	.553	-.836	.507	-1.161	.443
.250	-.769		-.791	.222	-.844	.246	-1.137	.233
.400	-.805		-.849	-.053	-.926	-.010	-1.176	.009
.550	-.898	-.306	-.877	-.222	-.965	-.197	-1.242	-.142
.700	-.936	-.576	-.936	-.462	-.961	-.343	-1.192	-.235
.850	-.973	-1.361	-.900	-.877	-.932	-.534	-1.036	-.336
.950	-.913	-1.184	-.819	-.861	-.876	-.693	-.932	-.518

ALPHA = 20.00 DEG      Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.295		-.757		-1.454	
.010			.357	.751				
.015					-.798	.993		
.025			-.746		-.770	1.008	-1.063	.970
.050			-.721	.969	-.782	.920	-1.048	.872
.100			-.756	.800	-.792	.740	-1.076	.664
.150			-.748	.603	-.795	.560	-1.061	.494
.250	-.760		-.801	.329	-.823	.320	-1.094	.270
.400	-.854		-.831	-.017	-.909	.034	-1.109	.038
.550	-.875	-.273	-.874	-.194	-.957	-.160	-1.124	-.128
.700	-.959	-.612	-.940	-.455	-.963	-.341	-1.154	-.243
.850	-.948	-1.380	-.912	-.888	-.937	-.545	-1.118	-.405
.950	-.914	-1.192	-.808	-.880	-.894	-.699	-1.029	-.584

TABLE 15 (c)

## PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.04 DEG

Q = 908 N/SQ.M. (18.97 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.618		.845		.999	
.010			-.152	-.300				
.015					-.381	-.449		
.025			-.404	-.548	-.294	-.485	-.296	-.133
.050			-.404	-.449	-.428	-.419	-.345	-.284
.100			-.372	-.568	-.430	-.511	-.317	-.296
.150			-.490	-.650	-.584	-.525	-.376	-.348
.250	-.366		-.508	-.694	-.451	-.543	-.463	-.455
.400	-.458		-.481	-.643	-.466	-.563	-.405	-.463
.550	-.432	-.587	-.416	-.606	-.399	-.506	-.294	-.385
.700	-.395	-.660	-.374	-.640	-.326	-.499	-.218	-.285
.850	-.399	-1.196	-.333	-.797	-.233	-.420	-.111	-.191
.950	-.489	-.893	-.343	-.587	-.204	-.279	-.063	-.073

ALPHA = 3.97 DEG

Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .187

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.006		.852		.347	
.010			-.087	.666				
.015					-1.382	.429		
.025			-1.230	.193	-1.273	.179	-1.241	.300
.050			-.919	-.037	-1.014	.060	-.919	.163
.100			-.722	-.156	-.809	-.002	-.741	-.030
.150			-.721	-.279	-.766	-.239	-.672	-.147
.250	-.462		-.667	-.500	-.667	-.358	-.641	-.288
.400	-.561		-.620	-.576	-.618	-.461	-.516	-.339
.550	-.486	-.522	-.484	-.545	-.502	-.472	-.414	-.325
.700	-.444	-.737	-.430	-.628	-.372	-.470	-.261	-.263
.850	-.449	-1.314	-.392	-.838	-.288	-.438	-.167	-.194
.950	-.526	-1.045	-.385	-.615	-.242	-.341	-.093	-.089

ALPHA = 7.98 DEG

Q = 903 N/SQ.M. (18.86 LBF/SQ.FT.)

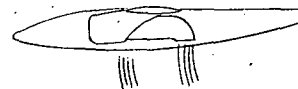
EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.496		-.479		-1.733	
.010			-.038					
.015					-2.807	.899		
.025			-2.329	.744	-2.629	.758	-2.727	.786
.050			-1.508	.459	-1.571	.524	-1.672	.548
.100			-1.088	.229	-1.257	.266	-1.255	.269
.150			-.995	.009	-1.056	.060	-1.011	.109
.250	-.592		-.845	-.258	-.899	-.166	-.857	-.043
.400	-.645		-.762	-.444	-.779	-.321	-.678	-.178
.550	-.556	-.556	-.583	-.473	-.584	-.404	-.484	-.251
.700	-.497	-.729	-.488	-.594	-.440	-.428	-.334	-.213
.850	-.493	-1.382	-.431	-.848	-.333	-.416	-.214	-.171
.950	-.557	-1.126	-.413	-.637	-.280	-.346	-.130	-.111



TABLE 15 (C) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.98 DEG Q = 909 N/SQ.M. (18.99 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.348		-1.851		-3.656	
.010			-.071	1.003				
.015					-4.875	1.010		
.025			-2.974	.891	-3.377	.884	-2.816	.920
.050			-1.960	.633	-2.017	.634	-1.932	.679
.100			-1.326	.354	-1.459	.433	-1.364	.425
.150			-1.206	.173	-1.274	.165	-1.168	.229
.250	-.636		-.955	-.139	-1.034	-.053	-.962	.006
.400	-.689		-.799	-.357	-.831	-.276	-.731	-.170
.550	-.586	-.531	-.630	-.428	-.638	-.360	-.536	-.213
.700	-.517	-.775	-.511	-.567	-.480	-.398	-.358	-.203
.850	-.501	-1.375	-.439	-.843	-.360	-.395	-.239	-.176
.950	-.579	-1.151	-.425	-.654	-.299	-.331	-.147	-.119

ALPHA = 11.99 DEG Q = 908 N/SQ.M. (18.96 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .186

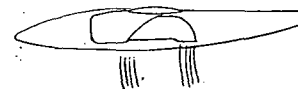
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.524		-1.748		-5.298	
.010			-.161	.853				
.015					-5.302	1.007		
.025			-3.388	1.007	-3.707	.986	-3.548	.978
.050			-2.263	.809	-2.409	.823	-2.288	.787
.100			-1.505	.544	-1.693	.535	-1.623	.558
.150			-1.308	.291	-1.434	.315	-1.323	.334
.250	-.693		-1.046	-.041	-1.169	.047	-1.061	.095
.400	-.740		-.847	-.290	-.891	-.184	-.808	-.085
.550	-.612	-.518	-.663	-.372	-.654	-.309	-.560	-.164
.700	-.534	-.761	-.525	-.544	-.519	-.344	-.380	-.173
.850	-.509	-1.386	-.451	-.829	-.361	-.384	-.242	-.169
.950	-.567	-1.175	-.424	-.655	-.297	-.314	-.179	-.128

ALPHA = 13.97 DEG Q = 910 N/SQ.M. (19.01 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.180		-.680		-1.758	
.010			-.114	.971				
.015					-1.566			
.025			-1.601	.980	-1.381	.935	-1.608	.936
.050			-1.468	.813	-1.419	.756	-1.649	.749
.100			-1.481	.540	-1.421	.516	-1.535	.495
.150			-1.609	.324	-1.495	.308	-1.511	.308
.250	-.891		-1.471	-.002	-1.346	.056	-1.485	.081
.400	-.853		-1.159	-.272	-1.216	-.195	-1.209	-.100
.550	-.704	-.545	-.818	-.363	-1.021	-.326	-1.039	-.189
.700	-.609	-.771	-.674	-.551	-.845	-.403	-.657	-.209
.850	-.523	-1.376	-.531	-.857	-.559	-.476	-.444	-.219
.950	-.610	-1.149	-.528	-.726	-.521	-.484	-.351	-.231

TABLE 15 (C) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.98 DEG

Q = 907 N/SQ.M. (18.94 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.011		-.536		-1.606	
.010			-.068	.962				
.015					-1.107	1.030		
.025			-.996	.992	-1.050	.966	-1.373	.959
.050			-1.076	.835	-1.053	.764	-1.436	.787
.100			-1.137	.595	-1.048	.552	-1.357	.543
.150			-1.189	.345	-1.088	.359	-1.385	.359
.250	-.899		-1.105	.027	-1.083	.089	-1.429	.126
.400	-.968		-1.141	-.240	-1.157	-.177	-1.423	-.071
.550	-.834	-.542	-1.102	-.371	-1.115	-.329	-1.321	-.184
.700	-.763	-.752	-.926	-.570	-1.022	-.435	-1.036	-.226
.850	-.677	-1.432	-.823	-.926	-.830	-.532	-.770	-.253
.950	-.667	-1.174	-.691	-.777	-.757	-.608	-.592	-.324

ALPHA = 17.98 DEG

Q = 907 N/SQ.M. (18.95 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.069		-.566		-1.611	
.010			-.028	.929				
.015					-1.000	1.032		
.025			-.913	1.020	-.926	.983	-1.349	.985
.050			-.872	.875	-.929	.823	-1.285	.823
.100			-.833	.624	-.913	.592	-1.301	.585
.150			-1.011	.417	-.943	.379	-1.370	.379
.250	-.825		-.972	.083	-.978	.118	-1.341	.168
.400	-.951		-1.008	-.215	-1.091	-.150	-1.357	-.053
.550	-1.001	-.507	-1.007	-.372	-1.069	-.342	-1.348	-.180
.700	-.905	-.778	-1.045	-.591	-1.069	-.473	-1.217	-.251
.850	-.862	-1.463	-.952	-.934	-.969	-.636	-1.045	-.350
.950	-.756	-1.228	-.789	-.894	-.889	-.739	-.773	-.397

ALPHA = 19.97 DEG

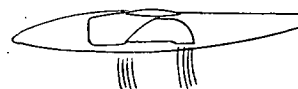
Q = 908 N/SQ.M. (18.95 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .185

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.205		-.625		-1.593	
.010			-.028	.868				
.015					-.925	1.033		
.025			-.821	1.033	-.894	1.016	-1.244	.991
.050			-.814	.927	-.876	.861	-1.198	.861
.100			-.835	.703	-.870	.642	-1.231	.636
.150			-.831	.505	-.885	.453	-1.220	.432
.250	-.833		-.892	.131	-.929	.181	-1.244	.196
.400	-.896		-.964	-.197	-1.010	-.113	-1.346	-.025
.550	-1.019	-.503	-1.019	-.380	-1.031	-.333	-1.301	-.183
.700	-.958	-.817	-1.016	-.610	-1.024	-.480	-1.286	-.287
.850	-.901	-1.543	-.940	-.955	-1.003	-.665	-1.126	-.393
.950	-.822	-1.275	-.853	-.921	-.918	-.774	-.992	-.539

TABLE 15 (D)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.02 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			-1.141		-.092		.645	
.010			-6.016	-1.469				
.015					.481	-1.564		
.025			.106	-1.666	.345	-1.619	.038	-.780
.050			-.057	-1.141	.079	-1.128	-.064	-.766
.100			-.112	-1.128	-.146	-1.019	-.153	-.705
.150			-.235	-1.128	-.214	-.896	-.146	-.732
.250	-.303		-.337	-.997	-.255	-.914	-.337	-.852
.400	-.362		-.356	-.766	-.366	-.762	-.323	-.670
.550	-.343	-.504	-.339	-.733	-.306	-.686	-.277	-.584
.700	-.343	-.703	-.319	-.726	-.283	-.647	-.217	-.455
.850	-.376	-1.053	-.326	-.762	-.237	-.495	-.154	-.273
.950	-.495	-.868	-.366	-.514	-.224	-.333	-.118	-.151

ALPHA = 3.99 DEG      Q = 231 N/SQ.M. ( 4.83 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .094

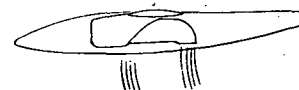
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.662		.914		.921	
.010			-5.256	.007				
.015					-.122	-.484		
.025			-.552	-.668	-.593	-.368	-.463	-.402
.050			-.327	-.525	-.354	-.375	-.532	-.225
.100			-.368	-.532	-.375	-.532	-.457	-.293
.150			-.409	-.627	-.395	-.559	-.429	-.375
.250	-.354		-.443	-.770	-.457	-.604	-.484	-.452
.400	-.439		-.485	-.783	-.459	-.684	-.426	-.482
.550	-.396	-.545	-.393	-.627	-.366	-.604	-.333	-.442
.700	-.350	-.593	-.350	-.614	-.320	-.525	-.251	-.350
.850	-.406	-1.004	-.327	-.746	-.254	-.459	-.158	-.294
.950	-.439	-.780	-.343	-.565	-.198	-.317	-.099	-.122

ALPHA = 7.99 DEG      Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.937		.783		-.040	
.010			-4.682	.684				
.015					-1.468	.501		
.025			-1.510	.347	-1.531	.305	-1.285	.347
.050			-.947	.072	-.954	.030	-1.201	.164
.100			-.666	-.033	-.750	.023	-.856	-.005
.150			-.666	-.321	-.743	-.406	-.708	-.160
.250	-.406		-.603	-.513	-.666	-.367	-.673	-.223
.400	-.438		-.540	-.554	-.571	-.493	-.503	-.288
.550	-.370	-.459	-.418	-.486	-.411	-.455	-.377	-.309
.700	-.349	-.609	-.329	-.520	-.315	-.431	-.234	-.274
.850	-.332	-1.065	-.298	-.595	-.223	-.360	-.155	-.206
.950	-.380	-.765	-.322	-.547	-.199	-.322	-.083	-.141

TABLE 15 (D) - CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 10.01 DEG

Q = 226 N/SQ.M. ( 4.73 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .093

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.858		.425		-.793	
.010			-3.955	.905				
.015					-2.262	.703		
.025			-1.615	.425	-1.768	.613	-1.747	.620
.050			-1.232	.167	-1.441	.237	-1.468	.306
.100			-.807	.105	-.835	.139	-.877	.098
.150			-.738	-.230	-.856	-.111	-.821	-.042
.250	-.459		-.675	-.449	-.772	-.273	-.745	-.195
.400	-.523		-.590	-.550	-.651	-.486	-.587	-.337
.550	-.435	-.536	-.452	-.489	-.486	-.432	-.435	-.297
.700	-.395	-.573	-.388	-.536	-.371	-.422	-.297	-.246
.850	-.398	-1.117	-.351	-.658	-.314	-.361	-.206	-.175
.950	-.449	-.867	-.364	-.577	-.246	-.283	-.131	-.158

ALPHA = 11.98 DEG

Q = 226 N/SQ.M. ( 4.73 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.053		-.267		-1.624	
.010			-3.559					
.015					-2.299	.958		
.025			-3.016	.805	-2.313	.777	-2.320	.742
.050			-1.527	.561	-1.596	.436	-1.568	.596
.100			-.991	.227	-1.053	.318	-1.130	.332
.150			-.866	-.086	-.998	.067	-.984	.102
.250	-.496		-.733	-.268	-.796	-.177	-.810	-.113
.400	-.558		-.636	-.396	-.676	-.410	-.606	-.214
.550	-.461	-.494	-.515	-.504	-.515	-.403	-.437	-.224
.700	-.410	-.602	-.417	-.491	-.383	-.413	-.292	-.214
.850	-.390	-1.156	-.366	-.599	-.295	-.322	-.191	-.167
.950	-.488	-.923	-.376	-.515	-.251	-.278	-.140	-.099

ALPHA = 13.99 DEG

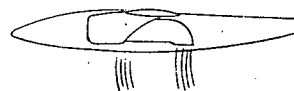
Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .093

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.197		-1.709		-3.450	
.010			-3.318					
.015					-4.539			
.025			-3.360	.919	-3.499	.892	-3.311	.933
.050			-1.674	.566	-1.813	.635	-1.869	.663
.100			-1.127	.365	-1.494	.378	-1.286	.462
.150			-1.009	.191	-1.071	.240	-1.127	.247
.250	-.516		-.794	-.173	-.884	-.075	-.898	.043
.400	-.546		-.643	-.294	-.704	-.176	-.647	-.153
.550	-.445	-.546	-.492	-.401	-.516	-.388	-.448	-.186
.700	-.368	-.613	-.395	-.452	-.381	-.348	-.300	-.200
.850	-.364	-1.087	-.341	-.580	-.267	-.307	-.183	-.132
.950	-.408	-.916	-.354	-.516	-.223	-.223	-.109	-.092

TABLE 15 (D) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.97 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.768		-1.956		-3.172	
.010			-3.207	.948				
.015					-3.082			
.025			-3.464		-2.908	.997	-3.304	
.050			-1.755	.781	-2.074	.788	-2.033	.809
.100			-1.595	.573	-1.456	.441	-1.477	.496
.150			-1.345	.184	-1.289	.295	-1.317	.309
.250	-.532		-.942	-.083	-1.004	.079	-.970	.085
.400	-.588		-.673	-.279	-.791	-.215	-.720	-.103
.550	-.474	-.541	-.504	-.322	-.555	-.279	-.487	-.181
.700	-.390	-.568	-.407	-.440	-.417	-.305	-.322	-.164
.850	-.366	-1.090	-.346	-.592	-.326	-.305	-.268	-.137
.950	-.407	-.908	-.353	-.481	-.231	-.265	-.127	-.103

ALPHA = 17.97 DEG      Q = 226 N/SQ.M. ( 4.71 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.050		-1.531		-1.741	
.010			-3.109	.913				
.015					-2.502			
.025			-2.146		-2.167	.983	-2.118	.969
.050			-1.531	.843	-1.377	.836	-1.391	.795
.100			-1.363	.550	-1.489	.571	-1.580	.550
.150			-1.524	.306	-1.447	.362	-1.405	.362
.250	-.637		-1.266	.055	-1.049	.122	-1.308	.105
.400	-.690		-.863	-.230	-.829	-.155	-.819	-.084
.550	-.480	-.413	-.744	-.284	-.717	-.237	-.663	-.176
.700	-.447	-.477	-.514	-.409	-.531	-.338	-.372	-.176
.850	-.379	-1.110	-.355	-.579	-.365	-.342	-.328	-.179
.950	-.399	-.897	-.345	-.433	-.314	-.270	-.206	-.142

ALPHA = 19.99 DEG      Q = 228 N/SC.M. ( 4.77 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.410		-.376		-1.404	
.010			-2.888	.997				
.015					-.921			
.025			-.921		-1.156	.990	-1.225	.997
.050			-.887	.859	-.935	.797	-1.225	.804
.100			-.887	.638	-.790	.542	-1.266	.542
.150			-1.073	.342	-1.128	.362	-1.204	.349
.250	-.755		-.838	.093	-.997	.133	-1.211	.133
.400	-.726		-1.001	-.175	-.971	-.111	-1.145	-.054
.550	-.713	-.422	-.690	-.302	-.817	-.275	-1.024	-.158
.700	-.456	-.496	-.613	-.379	-.780	-.345	-.850	-.221
.850	-.412	-1.084	-.616	-.563	-.629	-.402	-.579	-.258
.950	-.502	-.820	-.519	-.482	-.452	-.412	-.502	-.245

TABLE 16  
PRESSURE PROFILE ON WING



FORWARD NOZZLES DEFLECTED 90 DEGREES WITH INLETS CLOSED

ALPHA = -.03 DEG Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.456		.809		.951	
.010			.644	-.563				
.015					-.023	-.610		
.025			-.188	-.649	-.195	-.354	-.205	-.449
.050			-.293	-.507	-.281	-.394	-.195	-.332
.100			-.272	-.510	-.251	-.425	-.210	-.325
.150			-.368	-.511	-.294	-.444	-.281	-.364
.250	-.260		-.357	-.448	-.336	-.433	-.331	-.407
.400	-.331		-.350	-.365	-.337	-.424	-.317	-.370
.550	-.263	-.332	-.266	-.311	-.256	-.343	-.230	-.280
.700	-.201	-.371	-.170	-.324	-.173	-.202	-.140	-.160
.850	-.162	-.303	-.125	-.298	-.054	-.113	-.023	-.066
.950	-.154	-.212	-.094	-.182	.007	-.003	.029	.038

ALPHA = 3.99 DEG Q = 2836 N/SQ.M. (59.23 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.958		.928		.523	
.010			.587	.405				
.015					-.948	.367		
.025			-.985	.016	-.975	.126	-.842	.227
.050			-.637	-.013	-.732	.067	-.730	.167
.100			-.576	-.033	-.579	-.101	-.532	-.040
.150			-.526	-.339	-.545	-.191	-.497	-.060
.250	-.321		-.460	-.341	-.432	-.287	-.491	-.209
.400	-.357		-.427	-.361	-.478	-.327	-.417	-.258
.550	-.256	-.354	-.282	-.326	-.280	-.270	-.271	-.216
.700	-.163	-.369	-.180	-.270	-.177	-.199	-.153	-.147
.850	-.092	-.266	-.086	-.197	-.056	-.067	-.047	-.053
.950	-.069	-.167	-.037	-.052	.027	.016	.035	.040

ALPHA = 3.03 DEG Q = 2848 N/SQ.M. (59.49 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.746		-.277		-1.205	
.010			.543	.953				
.015					-2.157	.855		
.025			-1.762	.590	-1.873	.665	-1.884	.694
.050			-1.106	.385	-1.221	.442	-1.447	.516
.100			-.818	.144	-.968	.221	-.904	.330
.150			-.772	-.002	-.872	.065	-.836	.134
.250	-.405		-.653	-.192	-.675	-.079	-.673	.025
.400	-.414		-.502	-.278	-.541	-.173	-.530	-.133
.550	-.279	-.337	-.333	-.237	-.355	-.148	-.348	-.117
.700	-.159	-.280	-.191	-.184	-.203	-.114	-.201	-.096
.850	-.059	-.161	-.067	-.070	-.058	-.037	-.080	-.043
.950	-.001	-.053	.020	.021	.036	.023	.015	.016

TABLE 16 - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH INLETS CLOSED



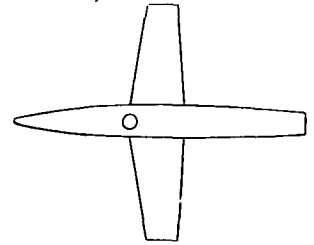
ALPHA = 10.02 DEG      Q = 2847 N/SQ.M. (59.46 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.127		-1.395		-2.923	
.010			.470	.993				
.015					-2.888	.953		
.025			-2.532	.838	-3.121	.825	-2.461	.876
.050			-1.490	.568	-1.712	.576	-1.612	.619
.100			-1.043	.298	-1.190	.378	-1.163	.378
.150			-.896	.172	-1.019	.202	-.977	.251
.250	-.455		-.731	-.063	-.796	.037	-.792	.063
.400	-.440		-.554	-.216	-.598	-.099	-.572	-.054
.550	-.307	-.279	-.356	-.197	-.396	-.096	-.390	-.078
.700	-.185	-.182	-.204	-.116	-.224	-.055	-.223	-.055
.850	-.079	-.039	-.072	-.013	-.070	-.018	-.093	-.017
.950	-.006	.012	.026	.041	.021	.026	-.008	.016

ALPHA = 12.00 DEG      Q = 2845 N/SQ.M. (59.41 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.644		-2.452		-4.104	
.010			.335	.947				
.015					-4.577	.973		
.025			-2.773	.901	-2.831	.935	-2.853	.931
.050			-1.798	.696	-2.159	.746	-1.903	.730
.100			-1.211	.440	-1.409	.486	-1.404	.512
.150			-1.045	.286	-1.195	.318	-1.130	.353
.250	-.480		-.807	.021	-.897	.142	-.877	.132
.400	-.446		-.583	-.161	-.644	-.035	-.640	.017
.550	-.305	-.251	-.370	-.152	-.414	-.049	-.415	-.041
.700	-.176	-.140	-.208	-.097	-.229	-.026	-.238	-.040
.850	-.064	-.033	-.062	-.010	-.071	-.005	-.104	-.022
.950	.019	.014	.030	.049	.013	.023	-.019	.009

TABLE 17 (A)  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE

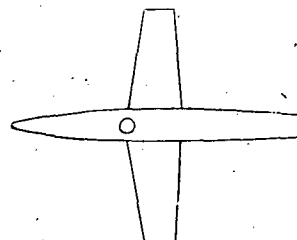


ALPHA = .00 DEG EFF. VEL. RATIO = ∞				ALPHA = 4.00 DEG EFF. VEL. RATIO = ∞				ALPHA = 7.96 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.068			-.013				.044			
.219	-.063			-.011				.034			
.286	-.098			-.049				-.006			
.331	-.094			-.049				-.001			
.353	-.076	-.055	-.109	-.031	-.006	-.024		.037	.046	.015	
.375	-.116			-.084				-.056			
.397		-.065	-.103		-.007	-.025			.053	.031	
.420	-.121	-.087	-.073	-.016	-.042	-.046		.030	.017	.015	
.442	-.070	-.092	-.095	-.012	-.036	-.046		.039	.011	-.004	
.464	-.077	-.121	-.124	-.042	-.072	-.063		-.004	-.025	-.026	
.487	-.113	-.099	-.113	-.072	-.062	-.066		-.021	-.026	-.026	
.509	-.104	-.109	-.111	-.064	-.070	-.066		-.017	-.028	-.025	
.531	-.115	-.104	-.095	-.081	-.072	-.067		-.042	-.037	-.034	
.554	-.115			-.084				-.053			
.576	-.101			-.079				-.056			
.598	-.092	-.077	-.086	-.074	-.055	-.044		-.052	-.038	-.014	
.620	-.069			-.056				-.038			
.643	-.056	-.054	-.059	-.047	-.042	-.041		-.032	-.014	-.011	
.665	-.034	-.036	-.062	-.029	-.028	-.034		-.012	-.008	-.009	
.687	-.021			-.013				-.015			
.710	-.017			-.008				-.008			
.732	-.001			-.002				-.003			

ALPHA = 9.97 DEG EFF. VEL. RATIO = ∞				ALPHA = 12.01 DEG EFF. VEL. RATIO = ∞				ALPHA = 14.03 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.071			.102				.138			
.219	.059			.092				.120			
.286	.032			.064				.100			
.331	.034			.056				.083			
.353	.062	.067	.030	.081	.096	.048		.111	.117	.052	
.375	-.037			-.018				.001			
.397		.078	.052		.098	.058			.113	.072	
.420	.045	.044	.036	.056	.056	.067		.063	.069	.075	
.442	.057	.035	.024	.060	.051	.027		.070	.062	.014	
.464	.025	-.005	-.016	.022	.004	-.013		.012	.011	-.020	
.487	-.007	.010	-.012	-.001	-.001	-.021		.003	-.002	-.035	
.509	-.012	-.012	-.005	-.009	-.009	-.012		-.012	-.016	-.020	
.531	-.024	-.018	-.003	-.026	-.028	-.022		-.029	-.031	-.035	
.554	-.035			-.040				-.048			
.576	-.042			-.044				-.058			
.598	-.040	-.029	-.008	-.050	-.040	-.024		-.058	-.052	-.031	
.620	-.033			-.044				-.058			
.643	-.029	-.014	-.007	-.041	-.029	-.022		-.051	-.040	-.040	
.665	-.011	-.004	-.007	-.023	-.016	-.018		-.031	-.029	-.038	
.687	.000			-.018				-.029			
.710	-.001			-.014				-.025			
.732	.002			-.014				-.018			

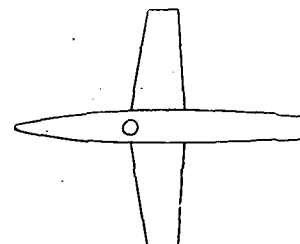


TABLE 17 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



	ALPHA = 15.98 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 18.04 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 20.05 DEG EFF. VEL. RATIO = $\infty$		
	CP			CP			CP		
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.184			.213			.253		
.219	.155			.201			.233		
.286	.114			.151			.184		
.331	.109			.143			.166		
.353	.140	.135	.056	.168	.165	.050	.205	.195	.044
.375	.019			.046			.070		
.397		.127	.070		.155	.083		.182	.103
.420	.062	.072	.069	.085	.093	.079	.105	.132	.130
.442	.069	.075	.014	.072	.087	.009	.089	.122	.024
.464	.010	.019	-.029	.015	.032	-.047	.033	.059	.000
.487	.006	.019	-.057	.019	.012	-.063	.037	.041	-.041
.509	-.028	-.031	-.052	-.021	-.015	-.064	-.004	-.004	-.069
.531	-.038	-.050	-.075	-.034	-.040	-.085	-.017	-.028	-.078
.554	-.063			-.063			-.039		
.576	-.067			-.076			-.056		
.598	-.075	-.071	-.064	-.089	-.098	-.104	-.073	-.087	-.109
.620	-.073			-.082			-.081		
.643	-.072	-.060	-.100	-.082	-.088	-.122	-.081	-.083	-.129
.665	-.052	-.060	-.069	-.068	-.079	-.104	-.065	-.077	-.131
.687	-.042			-.059			-.060		
.710	-.045			-.053			-.055		
.732	-.034			-.047			-.050		

TABLE 17 (B)  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE

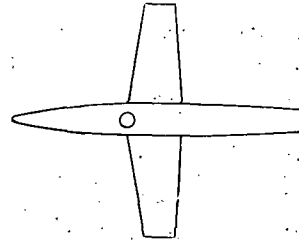


ALPHA = .02 DEG EFF. VEL. RATIO = .318				ALPHA = 4.04 DEG EFF. VEL. RATIO = .319				ALPHA = 8.01 DEG EFF. VEL. RATIO = .319			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.046			-.004				.054			
.219	-.017			.028				.086			
.286	.019			.058				.110			
.331	.145			.187				.220			
.353	.357	.140	-.064	.382	.162	-.088		.423	.191	-.114	
.375	.475			.478				.477			
.397		-4.278	-1.312		-4.444	-1.338			-4.632	-1.309	
.420	-.939	-2.659	-2.371	-1.285	-2.490	-2.216		-1.140	-2.495	-1.999	
.442	-1.583	-.903	-1.298	-1.551	-.846	-1.152		-1.347	-.767	-1.047	
.464	-1.719	-.602	-.997	-.782	-.496	-.909		-.848	-.459	-.771	
.487	-.568	-.695	-.533	-.407	-.246	-.584		-.376	-.776	-.463	
.509	-.022	-.403	-.511	-.084	-.379	-.451		-.551	-.245	-.346	
.531	-.429	-.359	-.449	-.302	-.286	-.317		-.275	-.215	-.309	
.554	-.401			-.298				-.215			
.576	-.331			-.311				-.207			
.598	-.345	-.314	-.269	-.297	-.209	-.188		-.232	-.162	-.135	
.620	-.354			-.292				-.196			
.643	-.258	-.219	-.199	-.218	-.204	-.155		-.135	-.158	-.111	
.665	-.229	-.263	-.157	-.238	-.171	-.137		-.152	-.114	-.082	
.687	-.218			-.223				-.165			
.710	-.214			-.153				-.138			
.732	-.202			-.195				-.124			

ALPHA = 10.00 DEG EFF. VEL. RATIO = .319				ALPHA = 12.00 DEG EFF. VEL. RATIO = .319				ALPHA = 13.96 DEG EFF. VEL. RATIO = .319			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.083			.128				.159			
.219	.105			.133				.170			
.286	.127			.164				.198			
.331	.256			.262				.294			
.353	.430	.198	-.112	.447	.199	-.209		.469	.218	-.166	
.375	.477			.481				.477			
.397		-4.555	-1.308		-4.760	-1.313			-4.709	-1.272	
.420	-1.312	-2.709	-1.525	-1.399	-2.615	-3.478		-1.272	-2.744	-2.573	
.442	-1.434	-.789	-1.038	-1.286	-.770	-.989		-1.352	-.838	-1.048	
.464	-1.310	-.400	-.759	-.882	-.432	-.740		-.814	-.415	-.790	
.487	-.311	-.217	-.484	-.267	-.463	-.464		-.333	-.519	-.469	
.509	-.305	-.259	-.388	-.731	-.242	-.368		-.268	-.245	-.307	
.531	-.243	-.190	-.283	-.189	-.177	-.244		-.189	-.161	-.281	
.554	-.210			-.173				-.175			
.576	-.201			-.211				-.095			
.598	-.168	-.114	-.107	-.168	-.105	-.085		-.126	-.075	-.061	
.620	-.155			-.098				-.106			
.643	-.171	-.069	-.043	-.110	-.089	-.054		-.063	-.078	-.027	
.665	-.145	-.097	-.062	-.106	-.081	-.043		-.097	-.023	-.022	
.687	-.156			-.118				-.060			
.710	-.130			-.140				-.103			
.732	-.118			-.072				-.057			

TABLE 17 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



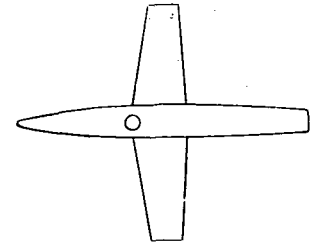
ALPHA = 16.06 DEG  
EFF. VEL. RATIO = .319

ALPHA = 18.03 DEG  
EFF. VEL. RATIO = .319

ALPHA = 20.00 DEG  
EFF. VEL. RATIO = .318

	CP			CP			CP		
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.194			.225			.272		
.219	.202			.241			.260		
.286	.227			.263			.273		
.331	.314			.340			.365		
.353	.474	.221	-.238	.493	.238	-.285	.513	.265	-.314
.375	.485			.484			.490		
.397		-4.728	-1.246		-4.686	-1.280		-4.509	-1.214
.420	-1.151	-2.658	-2.880	-1.344	-2.667	-2.835	-1.265	-2.611	-2.777
.442	-1.295	-.829	-1.075	-1.305	-.931	-1.038	-1.188	-.948	-1.002
.464	-1.300	-.463	-.762	-1.330	-.435	-.768	-1.410	-.421	-.736
.487	-.306	-.299	-.481	-.316	-.465	-.565	-.319	-.370	-.489
.509	-.409	-.293	-.476	-.339	-.333	-.417	-.312	-.201	-.368
.531	-.174	-.154	-.295	-.178	-.157	-.250	-.152	-.159	-.215
.554	-.142			-.169			-.109		
.576	-.138			-.107			-.101		
.598	-.126	-.053	-.083	-.097	-.092	-.073	-.087	-.074	-.083
.620	-.093			-.097			-.113		
.643	-.079	-.081	-.043	-.155	-.073	-.080	-.083	-.035	-.059
.665	-.060	-.045	-.070	-.094	-.062	-.041	-.072	-.041	-.052
.687	-.115			-.085			-.070		
.710	-.077			-.044			-.077		
.732	-.037			-.058			-.067		

TABLE 17 (c)  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE

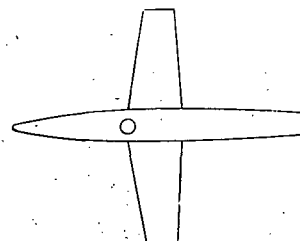


ALPHA = -0.02 DEG EFF. VEL. RATIO = .200				ALPHA = 4.00 DEG EFF. VEL. RATIO = .200				ALPHA = 8.04 DEG EFF. VEL. RATIO = .200			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.056			.002				.043			
.219	-.036			.002				.052			
.286	-.037			.005				.058			
.331	.053			.076				.114			
.353	.262	.004	-.190	.279	.027	-.193		.299	.064	-.233	
.375	.379			.366				.365			
.397		-4.492	-1.473		-4.100	-1.358			-4.004	-1.336	
.420	-1.560	-1.947	-3.707	-1.398	-1.757	-1.526		-.637	-1.637	-.427	
.442	-1.462	-.749	-1.132	-1.342	-.664	-1.206		-1.285	-.568	-1.078	
.464	-.337	-.499	-.920	-1.113	-.473	-.823		-1.262	-.453	-.743	
.487	-.532	-.851	-.485	-.550	-.380	-.526		-.575	-.870	-.487	
.509	-.470	-.360	-.482	-.486	-.527	-.457		-.759	-.534	-.418	
.531	-.509	-.405	-.474	-.440	-.419	-.499		-.440	-.440	-.367	
.554	-.382			-.518				-.599			
.576	-.438			-.508				-.604			
.598	-.421	-.434	-.281	-.488	-.333	-.290		-.508	-.428	-.339	
.620	-.475			-.468				-.470			
.643	-.399	-.309	-.223	-.373	-.435	-.274		-.533	-.432	-.255	
.665	-.347	-.324	-.226	-.423	-.451	-.244		-.421	-.362	-.255	
.687	-.293			-.350				-.420			
.710	-.251			-.326				-.425			
.732	-.268			-.315				-.375			

ALPHA = 9.96 DEG EFF. VEL. RATIO = .200				ALPHA = 11.98 DEG EFF. VEL. RATIO = .199				ALPHA = 14.02 DEG EFF. VEL. RATIO = .199			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.078			.109				.154			
.219	.086			.123				.139			
.286	.074			.089				.119			
.331	.127			.148				.167			
.353	.317	.041	-.241	.332	.068	-.273		.341	.098	-.274	
.375	.360			.362				.364			
.397		-3.826	-1.215		-3.616	-1.257			-3.765	-1.140	
.420	-1.205	-1.621	-2.418	-1.098	-1.549	-.601		-1.989	-1.578	-.823	
.442	-1.220	-.598	-1.215	-1.198	-.561	-1.044		-1.135	-.654	-.985	
.464	-.426	-.521	-.667	-1.017	-.466	-.827		-.114	-.453	-.627	
.487	-.587	-.128	-.434	-.595	-.415	-.443		-.503	-1.190	-.422	
.509	-.406	-.441	-.465	-.381	-.508	-.473		-.667	-.549	-.476	
.531	-.557	-.381	-.373	-.455	-.428	-.377		-.601	-.457	-.352	
.554	-.688			-.572				-.725			
.576	-.633			-.591				-.610			
.598	-.459	-.528	-.275	-.642	-.525	-.290		-.599	-.504	-.300	
.620	-.522			-.595				-.615			
.643	-.489	-.316	-.285	-.629	-.396	-.215		-.525	-.405	-.258	
.665	-.432	-.429	-.224	-.498	-.388	-.217		-.506	-.374	-.241	
.687	-.517			-.483				-.536			
.710	-.482			-.374				-.532			
.732	-.402			-.427				-.438			

TABLE 17 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



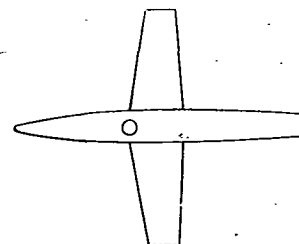
ALPHA = 16.00 DEG  
EFF. VEL. RATIO = .199

ALPHA = 17.98 DEG  
EFF. VEL. RATIO = .199

ALPHA = 19.98 DEG  
EFF. VEL. RATIO = .198

CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.183			.223				.267			
.219	.175			.200				.240			
.286	.139			.175				.209			
.331	.178			.208				.227			
.353	.352	.091	-.317	.364	.110	-.332		.382	.107	-.346	
.375	.366			.365				.373			
.397		-3.552	-1.223		-3.722	-1.182			-3.766	-1.063	
.420	-.771	-1.568	-1.617	-1.129	-1.414	-2.723		-1.700	-1.410	-2.653	
.442	-1.140	-.546	-.977	-1.168	-.387	-.781		-1.120	-.439	-.885	
.464	-.814	-.477	-.645	-.958	-.469	-.773		-.856	-.423	-.566	
.487	-.610	-.893	-.438	-.602	-.328	-.472		-.790	-1.577	-.482	
.509	-.752	-.778	-.387	-.496	-.389	-.449		-.820	-.451	-.418	
.531	-.571	-.492	-.433	-.851	-.510	-.351		-.603	-.471	-.443	
.554	-.718			-.667				-.677			
.576	-.672			-.715				-.767			
.598	-.531	-.558	-.297	-.711	-.522	-.316		-.714	-.532	-.285	
.620	-.605			-.604				-.643			
.643	-.566	-.511	-.260	-.715	-.524	-.286		-.730	-.507	-.251	
.665	-.578	-.491	-.243	-.593	-.469	-.241		-.596	-.428	-.224	
.687	-.572			-.519				-.597			
.710	-.532			-.522				-.548			
.732	-.490			-.465				-.585			

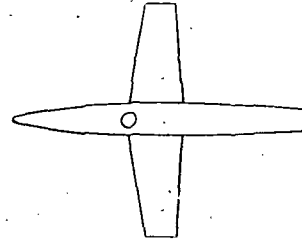
TABLE 17 (D) -  
PRESSUPE PROFILE ON FUSELAGE  
LIFT JET ALONE



ALPHA = .01 DEG EFF. VEL. RATIO = .099				ALPHA = .02 DEG EFF. VEL. RATIO = .100				ALPHA = 3.96 DEG EFF. VEL. RATIO = .100			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8		
X/L											
.130	-.081			-.074			-.046				
.219	-.111			-.110			-.078				
.286	-.186			-.169			-.148				
.331	-.163			-.150			-.151				
.353	-.037	-.251	-.346	-.037	-.204	-.403	-.027	-.253	-.407		
.375	.039			.019			.010				
.397		-4.457	-1.360		-5.061	-1.415		-4.069	-1.391		
.420	.044	-2.188	-2.828	-2.795	-1.796	.218	-.416	-1.897	-3.535		
.442	-1.632	-.581	-1.371	-1.329	-.567	-1.904	-.998	-.594	-1.714		
.464	-1.953	-.442	-1.600	.164	-.491	-1.104	.597	-.330	-1.165		
.487	-.431	-2.556	-.591	-.432	-.357	-.830	-.383	-.443	-.626		
.509	-1.050	-.495	-.730	-.357	-.459	-.819	-.432	-.335	-.583		
.531	-.426	-.410	-.453	-.443	-.406	-.636	-.416	-.367	-.507		
.554	-.497			-.506			-.418				
.576	-.469			-.467			-.367				
.598	-.482	-.321	-.344	-.443	-.388	-.359	-.433	-.326	-.289		
.620	-.408			-.458			-.349				
.643	-.368	-.324	-.272	-.381	-.322	-.293	-.311	-.293	-.264		
.665	-.303	-.329	-.303	-.340	-.319	-.282	-.292	-.217	-.245		
.687	-.300			-.305			-.282				
.710	-.274			-.279			-.221				
.732	-.212			-.260			-.200				

ALPHA = 7.99 DEG EFF. VEL. RATIO = .099				ALPHA = 9.95 DEG EFF. VEL. RATIO = .099				ALPHA = 12.06 DEG EFF. VEL. RATIO = .099			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8		
X/L											
.130	.008			.034			.074				
.219	-.039			-.021			.025				
.286	-.110			-.091			-.069				
.331	-.120			-.098			-.073				
.353	.008	-.154	-.346	.023	-.207	-.340	.026	-.195	-.255		
.375	.036			.022			.017				
.397		-4.185	-1.154		-3.803	-1.018		-3.414	-1.085		
.420	-.483	-1.566	-.169	.158	-1.398	-4.952	.088	-1.150	-2.360		
.442	-.072	-.467	-1.062	-.737	-.514	-.861	-.621	-.426	-1.020		
.464	-1.771	-.272	-.754	-.119	-.314	-1.040	.277	-.259	-.907		
.487	-.445	-.251	-.624	-.341	-.043	-.617	-.313	-.248	-.583		
.509	-.619	-.316	-.537	-.596	-.346	-.573	-1.269	-.313	-.388		
.531	-.397	-.370	-.391	-.319	-.309	-.444	-.329	-.291	-.253		
.554	-.424			-.321			-.334				
.576	-.382			-.343			-.310				
.598	-.375	-.353	-.276	-.387	-.451	-.286	-.324	-.312	-.208		
.620	-.383			-.355			-.328				
.643	-.316	-.380	-.280	-.341	-.427	-.202	-.283	-.379	-.250		
.665	-.336	-.305	-.277	-.343	-.331	-.206	-.244	-.350	-.199		
.687	-.315			-.271			-.274				
.710	-.297			-.290			-.250				
.732	-.263			-.269			-.257				

TABLE 17 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



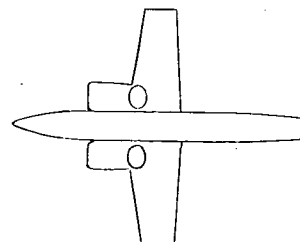
ALPHA =14.00 DEG  
EFF. VEL. RATIO = .099

ALPHA =15.98 DEG  
EFF. VEL. RATIO = .099

ALPHA =17.98 DEG  
EFF. VEL. RATIO = .099

				CP						CP						CP		
Y/YMAX =				0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L																		
.130				.106			.114			.169			.169					
.219				.044			.067			.107			.107					
.286				-.043			-.023			.012			.012					
.331				-.056			-.052			-.023			-.023					
.353				.031	-.136	-.272	.061	-.149	-.311	.073	-.123	-.279	.073	-.123	-.279			
.375				.016			.040			.033			.033					
.397					-3.495	-1.057		-3.659	-.822		-3.124	-.964		-3.124	-.964			
.420				.114	-1.117	.281	-2.060	-1.279	-3.611	-.133	-1.146	.077	-.133	-1.146	.077			
.442				-1.332	-.329	-1.257	-1.086	-.370	-.833	.211	-.347	-.567	.211	-.347	-.567			
.464				.604	-.232	-.566	-.660	-.197	-.671	-.369	-.176	-.744	-.369	-.176	-.744			
.487				-.334	-.038	-.421	-.197	-.192	-.445	-.272	-.111	-.412	-.272	-.111	-.412			
.509				-.232	-.270	-.356	.045	-.321	-.375	-.363	-.261	-.438	-.363	-.261	-.438			
.531				-.232	-.318	-.512	-.256	-.251	-.396	-.197	-.358	-.390	-.197	-.358	-.390			
.554				-.266			-.248			-.215			-.215					
.576				-.290			-.271			-.199			-.199					
.598				-.323	-.348	-.247	-.341	-.311	-.248	-.256	-.283	-.264	-.256	-.283	-.264			
.620				-.263			-.289			-.228			-.228					
.643				-.273	-.377	-.181	-.282	-.295	-.228	-.311	-.319	-.243	-.311	-.319	-.243			
.665				-.328	-.343	-.204	-.233	-.323	-.200	-.199	-.305	-.190	-.199	-.305	-.190			
.687				-.255			-.202			-.199			-.199					
.710				-.268			-.244			-.267			-.267					
.732				-.248			-.273			-.239			-.239					

TABLE 18 (A)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



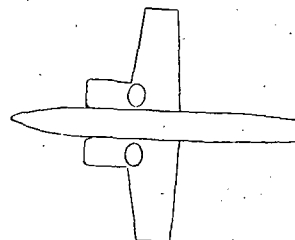
ALPHA = 0.00 DEG EFF. VEL. RATIO = ∞				ALPHA = 4.04 DEG EFF. VEL. RATIO = ∞				ALPHA = 7.98 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.019			.024				.075			
.219	-.033			.038				.102			
.286	-.116			-.054				.024			
.331	-.161			-.104				-.034			
.353	-.112	-.172	-.217	-.067	-.107	-.119		-.024	-.042	-.080	
.375	-.116			-.084				-.042			
.357		-.116	-.118		-.086	-.086			-.045	-.042	
.420	-.129	-.080	-.069	-.092	-.056	-.052		-.050	-.020	-.018	
.442	-.081	-.055	-.075	-.029	-.025	-.043		-.008	.005	-.028	
.464	-.067	-.115	-.101	-.063	-.094	-.084		-.016	-.073	-.067	
.487	-.116	-.109	-.127	-.105	-.105	-.106		-.084	-.084	-.079	
.509	-.129	-.132	-.145	-.101	-.115	-.126		-.084	-.093	-.101	
.531	-.137	-.137	-.161	-.129	-.124	-.148		-.115	-.107	-.115	
.554	-.151			-.135				-.125			
.576	-.140			-.126				-.116			
.598	-.127	-.127	-.128	-.111	-.099	-.107		-.105	-.090	-.083	
.620	-.093			-.081				.082			
.643	-.065	-.057	-.065	-.060	-.055	-.055		-.065	-.051	-.050	
.665	-.031	-.036	-.037	-.033	-.029	-.028		-.037	-.034	-.045	
.687	.006			-.005				-.017			
.710	.015			.008				-.007			
.732	.020			.021				.007			

ALPHA = 9.98 DEG EFF. VEL. RATIO = ∞				ALPHA = 12.01 DEG EFF. VEL. RATIO = ∞				ALPHA = 13.98 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.114			.159				.178			
.219	.128			.173				.201			
.286	.059			.093				.135			
.331	-.008			.034				.057			
.353	.021	-.007	-.041	.038	.019	.004		.064	.030	.009	
.375	-.007			.018				.023			
.397		-.021	-.026		-.005	-.005			-.000	-.001	
.420	-.025	-.000	.004	-.008	.013	.017		-.003	.010	.017	
.442	.012	.012	.007	.024	.021	-.001		.014	.021	-.022	
.464	-.021	-.059	-.055	-.001	-.043	-.044		-.018	-.064	-.067	
.487	-.064	-.065	-.068	-.053	-.057	-.056		-.069	-.080	-.098	
.509	-.065	-.089	-.089	-.055	-.077	-.082		-.093	-.097	-.118	
.531	-.099	-.098	-.096	-.097	-.094	-.095		-.110	-.117	-.134	
.554	-.112			-.103				-.123			
.576	-.109			-.103				-.131			
.598	-.103	-.088	-.074	-.101	-.081	-.063		-.124	-.119	-.108	
.620	-.079			-.078				-.109			
.643	-.066	-.052	-.047	-.065	-.051	-.046		-.100	-.083	-.072	
.665	-.043	-.038	-.038	-.049	-.037	-.033		-.070	-.062	-.053	
.687	-.023			-.034				-.050			
.710	-.012			-.023				-.046			
.732	.003			-.013				-.034			

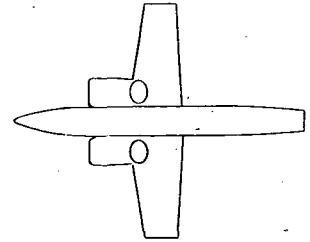


TABLE 18 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.02 DEG EFF. VEL. RATIO = ∞				ALPHA = 17.99 DEG EFF. VEL. RATIO = ∞				ALPHA = 20.00 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.199			.259				.292			
.219	.235			.278				.310			
.286	.158			.201				.235			
.331	.081			.118				.161			
.353	.089	.059	.046	.122	.085	.069		.153	.116	.113	
.375	.030			.074				.097			
.397		.010	.012		.026	.026			.052	.037	
.420	.002	.016	.010	.022	.032	.026		.029	.039	.048	
.442	.019	.026	.016	.013	.033	.031		.026	.058	.021	
.464	-.024	-.057	-.071	-.016	-.051	-.081		-.023	-.021	-.078	
.487	-.069	-.071	-.115	-.059	-.052	-.131		-.052	-.059	-.118	
.509	-.109	-.108	-.129	-.099	-.107	-.156		-.127	-.101	-.166	
.531	-.119	-.129	-.151	-.112	-.126	-.171		-.105	-.124	-.179	
.554	-.130			-.135				-.123			
.576	-.131			-.134				-.131			
.598	-.133	-.132	-.121	-.135	-.146	-.149		-.132	-.148	-.165	
.620	-.121			-.122				-.119			
.643	-.111	-.101	-.104	-.112	-.112	-.128		-.112	-.122	-.141	
.665	-.089	-.085	-.087	-.092	-.089	-.100		-.093	-.107	-.138	
.687	-.062			-.072				-.071			
.710	-.053			-.063				-.064			
.732	-.046			-.052				-.050			

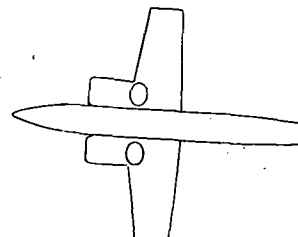
TABLE 18 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = -0.01 DEG EFF. VEL. RATIO = .296				ALPHA = 4.00 DEG EFF. VEL. RATIO = .295				ALPHA = 8.04 DEG EFF. VEL. RATIO = .295			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8		
X/L											
.130	-.031			.019			.089				
.219	.000			.045			.121				
.286	-.056			.032			.094				
.331	-.053			.014			.091				
.353	.015	-.034	-.064	.092	.034	.009	.141	.105	.091		
.375	.018			.070			.146				
.397		.053	.073		.104	.128		.172	.197		
.420	.071	.113	.089	.132	.167	.156	.207	.219	.225		
.442	.144	.122	.155	.213	.169	.209	.265	.223	.274		
.464	.135	.091	-.017	.215	.126	.088	.270	.186	.146		
.487	.005	.031	-.322	.059	.070	-.229	.128	.165	-.173		
.509	-.178	-.104	-.640	-.127	-.035	-.579	-.286	.024	-.447		
.531	-.143	-.251	-.880	-.072	-.178	-.842	-.003	-.100	-.744		
.554	-.173			-.108			-.047				
.576	-.122			-.078			-.001				
.598	-.017	-.275	-.507	.013	-.216	-.489	.046	-.141	-.411		
.620	.118			.116			.139				
.643	.174	.030	.008	.170	-.045	.025	.159	-.141	.017		
.665	.171	-.042	-.122	.163	.029	-.081	.135	-.065	-.054		
.687	.124			.130			.110				
.710	.092			.064			.059				
.732	.047			.041			.023				

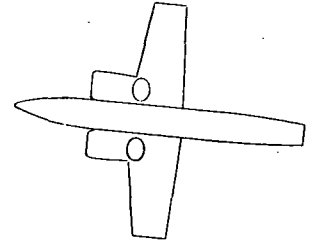
ALPHA = 9.99 DEG EFF. VEL. RATIO = .294				ALPHA = 12.01 DEG EFF. VEL. RATIO = .294				ALPHA = 14.01 DEG EFF. VEL. RATIO = .294			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8		
X/L											
.130	.121			.157			.187				
.219	.156			.207			.242				
.286	.141			.203			.237				
.331	.131			.170			.208				
.353	.184	.152	.122	.219	.196	.177	.258	.231	.212		
.375	.174			.216			.243				
.397		.196	.222		.250	.254		.263	.278		
.420	.213	.242	.257	.250	.276	.263	.281	.305	.325		
.442	.290	.246	.308	.336	.289	.345	.352	.312	.367		
.464	.332	.213	.185	.342	.259	.232	.367	.281	.248		
.487	.151	.162	-.126	.199	.216	-.040	.208	.232	-.029		
.509	.033	.059	-.416	.115	.102	-.343	.132	.122	-.343		
.531	.039	-.069	-.705	.064	-.016	-.608	.091	-.002	-.582		
.554	.006			.044			.053				
.576	.009			.056			.062				
.598	.069	-.118	-.381	.105	-.079	-.320	.096	-.068	-.332		
.620	.133			.158			.148				
.643	.166	-.182	.007	.176	-.106	.024	.157	-.162	-.004		
.665	.132	-.059	-.060	.153	-.085	-.038	.161	-.138	-.052		
.687	.107			.098			.107				
.710	.057			.068			.053				
.732	.010			.023			.014				

TABLE 18 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 15.99 DEG EFF. VEL. RATIO = .297				ALPHA = 18.04 DEG EFF. VEL. RATIO = .297				ALPHA = 20.01 DEG EFF. VEL. RATIO = .297			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.224			.280				.311			
.219	.271			.310				.349			
.286	.277			.324				.351			
.331	.253			.287				.330			
.353	.284	.250	.240	.305	.291	.277		.336	.308	.300	
.375	.262			.303				.319			
.397		.279	.303		.299	.318			.320	.339	
.420	.293	.317	.328	.305	.334	.361		.339	.350	.339	
.442	.365	.324	.397	.383	.334	.414		.395	.351	.437	
.464	.410	.288	.279	.409	.303	.296		.415	.320	.346	
.487	.226	.257	.011	.232	.217	.020		.255	.236	.068	
.509	.047	.120	-.327	.036	.113	-.296		.182	.160	-.268	
.531	.100	.002	-.584	.093	.007	-.596		.107	.035	-.553	
.554	.052			.050				.055			
.576	.068			.052				.038			
.598	.097	-.062	-.281	.090	-.055	-.336		.077	-.067	-.300	
.620	.134			.120				.100			
.643	.158	-.201	.005	.113	-.169	-.017		.117	-.113	-.099	
.665	.142	-.156	-.055	.142	-.178	-.036		.118	-.211	-.090	
.687	.105			.096				.091			
.710	.022			.029				.042			
.732	-.010			.004				-.019			

TABLE 18 (C)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES

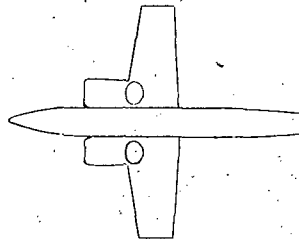


ALPHA = -0.01 DEG EFF. VEL. RATIO = .198				ALPHA = 4.03 DEG EFF. VEL. RATIO = .197				ALPHA = 8.03 DEG EFF. VEL. RATIO = .197			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.038			.045				.098			
.219	-.012			.070				.131			
.286	-.024			.086				.144			
.331	-.010			.054				.140			
.353	.003	-.004	-.044	.116	.083	.047		.197	.142	.124	
.375	.032			.122				.192			
.397		.068	.073		.130	.134			.188	.212	
.420	.068	.113	.130	.155	.179	.192		.175	.237	.249	
.442	.162	.138	.166	.237	.187	.241		.282	.241	.315	
.464	.244	.060	.036	.233	.134	.142		.319	.184	.212	
.487	-.025	-.037	-.307	.044	-.001	-.219		.114	.077	-.087	
.509	-.131	-.201	-.934	-.100	-.137	-.773		-.095	-.062	-.656	
.531	-.205	-.364	-1.273	-.141	-.313	-1.257		-.087	-.238	-1.057	
.554	-.191			-.147				-.104			
.576	-.078			-.052				-.007			
.598	.092	-.148	-.056	.108	-.036	-.047		.097	.021	-.039	
.620	.184			.175				.175			
.643	.205	.064	-.218	.185	.112	-.266		.160	.020	-.222	
.665	.189	.076	-.309	.163	.054	-.239		.148	.017	-.265	
.687	.179			.142				.109			
.710	.155			.109				.111			
.732	.150			.137				.117			

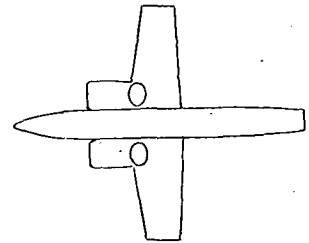
ALPHA = 9.98 DEG EFF. VEL. RATIO = .197				ALPHA = 12.03 DEG EFF. VEL. RATIO = .197				ALPHA = 14.02 DEG EFF. VEL. RATIO = .198			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.123			.148				.211			
.219	.165			.199				.264			
.286	.202			.233				.255			
.331	.177			.213				.250			
.353	.224	.178	.151	.247	.205	.217		.280	.256	.237	
.375	.214			.237				.293			
.397		.226	.226		.257	.257			.289	.281	
.420	.226	.259	.271	.253	.311	.274		.281	.334	.359	
.442	.308	.275	.345	.347	.327	.372		.355	.342	.424	
.464	.336	.226	.250	.352	.249	.315		.481	.297	.334	
.487	.132	.128	-.093	.176	.233	-.037		.208	.232	.016	
.509	.034	-.048	-.731	.078	.008	-.646		.110	.033	-.619	
.531	-.040	-.220	-1.087	-.033	-.159	-.981		.012	-.118	-.892	
.554	-.073			-.048				-.021			
.576	.007			.004				.058			
.598	.119	-.057	-.077	.100	-.061	-.070		.109	-.087	-.068	
.620	.158			.145				.166			
.643	.154	.055	-.230	.144	.020	-.211		.157	-.043	-.240	
.665	.139	.023	-.266	.125	-.022	-.282		.130	.015	-.235	
.687	.109			.106				.116			
.710	.112			.102				.082			
.732	.107			.088				.070			

TABLE 18 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.01 DEG EFF. VEL. RATIO = .197				ALPHA = 18.00 DEG EFF. VEL. RATIO = .197				ALPHA = 19.39 DEG EFF. VEL. RATIO = .197			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.256			.277				.316			
.219	.301			.351				.395			
.286	.326			.391				.413			
.331	.303			.347				.359			
.353	.323	.295	.296	.378	.344	.328		.387	.365	.362	
.375	.331			.349				.386			
.397		.331	.331		.361	.341			.374	.358	
.420	.339	.359	.371	.328	.402	.386		.370	.415	.411	
.442	.396	.384	.437	.414	.427	.464		.403	.440	.489	
.464	.400	.347	.396	.423	.374	.394		.448	.399	.440	
.487	.236	.298	.048	.271	.259	.079		.288	.280	.104	
.509	-.005	.073	-.492	.132	.120	-.515		.211	.129	-.484	
.531	.040	-.083	-1.016	.066	-.081	-.920		.076	-.047	-.937	
.554	-.016			.003				.022			
.576	.028			.062				.043			
.598	.092	-.097	-.088	.112	-.034	-.107		.110	-.036	-.141	
.620	.158			.175				.152			
.643	.123	-.035	-.164	.160	-.060	-.155		.173	-.066	-.176	
.665	.135	.008	-.231	.134	-.029	-.257		.134	-.056	-.244	
.687	.110			.105				.091			
.710	.085			.064				.089			
.732	.075			.047				.046			

TABLE 18 (D)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES

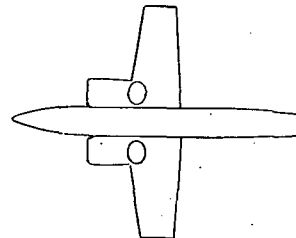


ALPHA = .02 DEG EFF. VEL. RATIO = .098				ALPHA = 4.03 DEG EFF. VEL. RATIO = .098				ALPHA = 8.03 DEG EFF. VEL. RATIO = .098			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.088			.179				.213			
.219	.146			.209				.287			
.286	.186			.277				.345			
.331	.193			.287				.342			
.353	.207	.197	.183	.317	.283	.260		.386	.372	.342	
.375	.449			.306				.363			
.397		.449	.466		.306	.306			.363	.330	
.420	.466	.549	.482	.306	.355	.339		.396	.413	.479	
.442	.549	.615	.648	.405	.438	.471		.429	.462	.495	
.464	.664	.549	.565	.536	.372	.405		.479	.429	.479	
.487	.416	.300	.218	.257	.257	.026		.297	.413	.032	
.509	.383	.119	-.841	.142	-.138	-1.208		.131	-.068	-1.161	
.531	-.096	-.675	-2.826	-.303	-.846	-2.245		-.250	-.830	-2.140	
.554	-.269			-.304				-.243			
.576	.027			.152				.121			
.598	.306	.095	-.235	.382	.280	-.233		.318	.240	-.240	
.620	.339			.274				.325			
.643	.387	.238	.125	.267	.152	.064		.260	.148	.012	
.665	.316	.217	.193	.317	.219	.138		.264	.138	.169	
.687	.326			.314				.267			
.710	.326			.297				.264			
.732	.312			.297				.284			

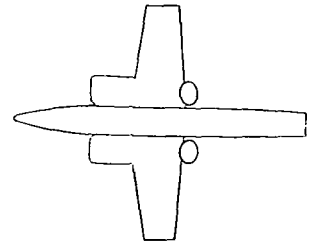
ALPHA = 9.87 DEG EFF. VEL. RATIO = .099				ALPHA = 11.97 DEG EFF. VEL. RATIO = .098				ALPHA = 13.99 DEG EFF. VEL. RATIO = .098			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.264			.296				.292			
.219	.304			.327				.350			
.286	.385			.405				.421			
.331	.378			.391				.401			
.353	.472	.371	.358	.391	.388	.361		.431	.394	.373	
.375	.388			.454				.426			
.397		.421	.355		.421	.338			.459	.377	
.420	.372	.404	.388	.404	.454	.421		.393	.459	.393	
.442	.437	.519	.519	.437	.520	.570		.459	.525	.558	
.464	.584	.453	.519	.471	.471	.520		.476	.459	.509	
.487	.306	.388	.094	.355	.355	.156		.294	.393	.112	
.509	-.069	-.069	-1.082	-.026	-.009	-1.018		.046	-.020	-1.258	
.531	-.200	-.723	-2.587	-.241	-.770	-2.160		-.267	-.664	-1.837	
.554	-.317			-.254				-.298			
.576	.089			.100				.062			
.598	.308	.133	-.229	.310	.201	-.376		.292	.163	-.379	
.620	.318			.358				.285			
.643	.281	.163	-.015	.310	.093	-.023		.252	.038	-.054	
.665	.244	.053	.046	.259	.079	.001		.163	.014	.004	
.687	.254			.201				.180			
.710	.240			.222				.207			
.732	.240			.235				.201			

TABLE 18 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.00 DEG EFF. VEL. RATIO = .098				ALPHA = 18.04 DEG EFF. VEL. RATIO = .099				ALPHA = 20.02 DEG EFF. VEL. RATIO = .099			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.329			.399				.446			
.219	.420			.483				.535			
.286	.464			.530				.601			
.331	.470			.524				.561			
.353	.484	.467	.426	.571	.527	.483		.584	.551	.502	
.375	.448			.478				.581			
.397		.448	.399		.494	.445			.597	.516	
.420	.366	.497	.464	.396	.543	.560		.516	.629	.693	
.442	.497	.563	.596	.511	.609	.609		.581	.645	.693	
.464	.645	.546	.596	.576	.576	.625		.709	.629	.693	
.487	.333	.514	.202	.413	.314	.216		.484	.452	.307	
.509	.071	-.044	-.913	.183	.036	-.848		.163	.083	-.817	
.531	-.224	-.667	-1.848	-.242	-.651	-2.387		-.174	-.480	-1.749	
.554	-.280			-.205				-.184			
.576	.103			.050				.139			
.598	.255	.252	-.220	.329	.137	-.380		.340	.264	-.151	
.620	.292			.295				.311			
.643	.252	.019	-.176	.258	.057	-.128		.291	.053	-.161	
.665	.215	.006	.023	.205	-.024	-.041		.182	-.006	-.072	
.687	.157			.188				.152			
.710	.171			.191				.166			
.732	.184			.208				.182			

TABLE 19 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



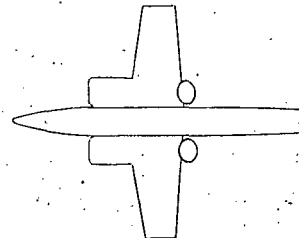
ALPHA = .01 DEG EFF. VEL. RATIO = $\infty$				ALPHA = 3.98 DEG EFF. VEL. RATIO = $\infty$				ALPHA = 8.02 DEG EFF. VEL. RATIO = $\infty$			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.037			.018				.081			
.219	-.054			.013				.088			
.286	-.160			-.082				.012			
.331	-.205			-.134				-.073			
.353	-.170	-.185	-.301	-.119	-.127	-.219		-.044	-.051	-.130	
.375	-.191			-.134				-.067			
.397		-.191	-.223		-.147	-.180			-.086	-.118	
.420	-.238	-.142	-.150	-.183	-.105	-.100		-.117	-.050	-.057	
.442	-.173	-.092	-.152	-.125	-.094	-.122		-.088	-.040	-.091	
.464	-.160	-.122	-.135	-.125	-.101	-.117		-.097	-.062	-.089	
.487	-.093	-.101	-.083	-.068	-.075	-.055		-.036	-.033	-.041	
.509	-.078	-.066	-.040	-.054	-.046	-.025		-.025	-.020	-.003	
.531	-.062	-.045	-.015	-.045	-.033	-.004		-.024	-.007	.027	
.554	-.052			-.047				-.026			
.576	-.037			-.031				-.020			
.598	-.027	-.003	.011	-.025	-.005	.023		-.021	.003	.034	
.620	-.010			-.008				-.007			
.643	-.006	-.008	-.016	-.007	-.005	-.002		-.005	.000	.006	
.665	.005	-.008	-.035	.006	-.005	-.018		.007	.002	-.010	
.687	-.020			.009				.010			
.710	-.009			.012				.015			
.732	.001			.022				.023			

ALPHA = 10.06 DEG EFF. VEL. RATIO = $\infty$				ALPHA = 12.02 DEG EFF. VEL. RATIO = $\infty$				ALPHA = 14.01 DEG EFF. VEL. RATIO = $\infty$			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.113			.144				.183			
.219	.133			.170				.190			
.286	.040			.089				.124			
.331	-.033			.016				.042			
.353	-.013	-.008	-.083	.023	.027	-.034		.054	.056	.000	
.375	-.046			-.015				.011			
.397		-.067	-.102		-.035	-.068			-.019	-.053	
.420	-.086	-.046	-.034	-.060	-.015	-.005		-.056	-.007	.002	
.442	-.069	-.055	-.082	-.052	-.005	-.062		-.039	.006	-.052	
.464	-.069	-.046	-.072	-.047	-.027	-.055		-.058	-.016	-.063	
.487	-.027	-.034	-.043	-.006	-.008	-.025		-.002	.011	-.032	
.509	-.023	-.012	.009	-.008	.000	.020		-.008	.005	-.002	
.531	-.022	-.005	.027	-.005	.007	.029		-.005	.005	.027	
.554	-.012			-.013				-.017			
.576	-.011			-.013				-.023			
.598	-.016	.014	.042	-.018	-.001	.031		-.037	-.016	.012	
.620	-.006			-.016				-.033			
.643	-.009	.000	.006	-.023	-.010	-.004		-.037	-.031	-.021	
.665	-.002	-.000	-.006	-.013	-.011	-.019		-.039	-.029	-.043	
.687	.007			-.006				-.035			
.710	.010			-.002				-.029			
.732	.016			.004				-.027			

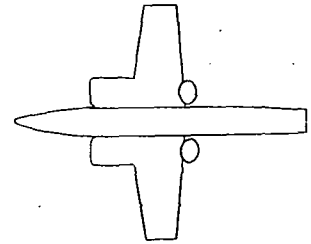


TABLE 19 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 15.99 DEG EFF. VEL. RATIO = $\infty$				ALPHA = 18.00 DEG EFF. VEL. PATIO = $\infty$				ALPHA = 20.03 DEG EFF. VEL. RATIO = $\infty$			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.220			.260				.300			
.219	.225			.259				.322			
.286	.164			.197				.248			
.331	.068			.125				.162			
.353	.083	.077	.036	.105	.115	.049		.154	.149	.084	
.375	.037			.074				.103			
.397		-.002	-.041		.034	-.025			.054	-.000	
.420	-.042	.003	.006	-.031	.038	.025		.002	.055	.044	
.442	-.039	.005	-.040	-.013	.027	-.035		-.007	.055	-.029	
.464	-.048	-.015	-.079	-.030	.006	-.055		-.043	.035	-.059	
.487	.005	.012	-.049	.027	.033	-.041		.050	.035	-.017	
.509	-.037	.005	-.010	-.001	.018	-.012		.014	.034	.008	
.531	-.003	-.005	.005	.003	.004	.012		.019	.010	.016	
.554	-.027			-.020				-.008			
.576	-.032			-.036				-.028			
.598	-.045	-.031	-.002	-.051	-.039	-.013		-.049	-.039	-.010	
.620	-.045			-.057				-.051			
.643	-.059	-.059	-.046	-.067	-.058	-.063		-.067	-.064	-.078	
.665	-.052	-.048	-.057	-.065	-.065	-.075		-.062	-.068	-.094	
.687	-.053			-.064				-.073			
.710	-.057			-.064				-.075			
.732	-.046			-.061				-.071			

TABLE 19 (B)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES

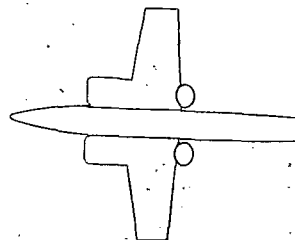


ALPHA = .00 DEG EFF. VEL. RATIO = .291				ALPHA = 4.01 DEG EFF. VEL. RATIO = .292				ALPHA = 7.99 DEG EFF. VEL. RATIO = .292			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.045			.004				.072			
.219	-.042			-.003				.107			
.286	-.104			-.027				.044			
.331	-.154			-.062				-.006			
.353	-.112	-.148	-.235	-.035	-.082	-.139		.030	-.009	-.054	
.375	-.119			-.069				.002			
.397		-.125	-.174		-.081	-.113			-.029	-.071	
.420	-.167	-.075	-.079	-.120	-.047	-.039		-.074	.009	.006	
.442	-.107	-.039	-.064	-.078	-.021	-.063		-.029	.026	-.027	
.464	-.070	-.033	-.053	-.072	-.005	-.036		-.016	.046	-.011	
.487	.016	.031	.018	.039	.061	.017		.090	.082	.042	
.509	.040	.062	.071	.065	.079	.079		.093	.119	.108	
.531	.087	.097	.113	.110	.119	.121		.143	.155	.148	
.554	.129			.143				.179			
.576	.171			.184				.211			
.598	.202	.230	.260	.222	.250	.275		.252	.286	.316	
.620	.227			.250				.273			
.643	.225	.235	.309	.235	.265	.352		.250	.272	.359	
.665	.175	.164	-.159	.179	.168	-.105		.209	.203	-.097	
.687	.093			.101				.118			
.710	-.011			-.011				.017			
.732	-.085			-.077				-.095			

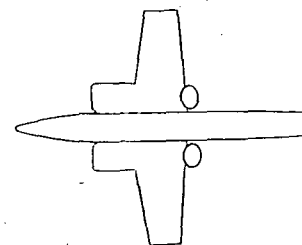
ALPHA = 10.05 DEG EFF. VEL. RATIO = .292				ALPHA = 11.99 DEG EFF. VEL. RATIO = .292				ALPHA = 13.99 DEG EFF. VEL. RATIO = .292			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.095			.138				.170			
.219	.135			.170				.210			
.286	.102			.137				.180			
.331	.035			.078				.113			
.353	.077	.024	-.015	.102	.064	.040		.134	.090	.071	
.375	.019			.064				.085			
.397		.010	-.041		.035	-.022			.053	.001	
.420	-.034	.030	.027	-.024	.066	.075		-.006	.082	.078	
.442	-.005	.049	-.006	.006	.084	.009		.003	.087	.009	
.464	.005	.072	.010	.020	.079	.022		.020	.096	.016	
.487	.105	.114	.054	.119	.134	.066		.140	.144	.071	
.509	.113	.133	.113	.128	.148	.112		.144	.149	.118	
.531	.164	.164	.171	.176	.177	.165		.184	.184	.169	
.554	.187			.220				.212			
.576	.239			.248				.249			
.598	.258	.297	.323	.276	.306	.332		.274	.308	.344	
.620	.289			.290				.290			
.643	.257	.293	.376	.279	.295	.375		.251	.280	.359	
.665	.211	.195	-.082	.214	.200	-.094		.179	.175	-.081	
.687	.125			.119				.075			
.710	.015			.001				-.047			
.732	-.098			-.110				-.158			

TABLE 19 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 15.99 DEG EFF. VEL. RATIO = .291				ALPHA = 18.03 DEG EFF. VEL. RATIO = .291				ALPHA = 19.99 DEG EFF. VEL. RATIO = .291			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.200			.255				.273			
.219	.244			.282				.317			
.286	.221			.242				.308			
.331	.141			.185				.216			
.353	.152	.127	.097	.190	.164	.125		.232	.190	.161	
.375	.116			.154				.174			
.397		.074	.026		.112	.032			.141	.068	
.420	.023	.099	.110	.035	.118	.120		.068	.154	.152	
.442	.015	.112	.019	.043	.131	.006		.056	.158	.045	
.464	-.001	.112	.019	.006	.136	.021		.067	.156	.030	
.487	.149	.154	.052	.173	.178	.054		.194	.196	.065	
.509	.147	.167	.118	.178	.178	.120		.182	.204	.121	
.531	.202	.189	.165	.215	.204	.165		.233	.227	.172	
.554	.223			.229				.252			
.576	.248			.261				.282			
.598	.284	.316	.347	.285	.322	.359		.307	.336	.364	
.620	.286			.289				.309			
.643	.245	.281	.353	.246	.276	.338		.258	.288	.355	
.665	.170	.172	-.104	.170	.161	-.061		.170	.170	-.083	
.687	.053			.045				.053			
.710	-.076			-.087				-.098			
.732	-.185			-.207				-.211			

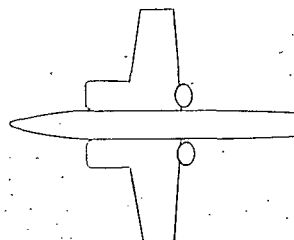
TABLE 19 (C)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = .01 DEG EFF. VEL. RATIO = .194				ALPHA = 4.02 DEG EFF. VEL. RATIO = .194				ALPHA = 8.00 DEG EFF. VEL. RATIO = .194			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.083			-.035				.023			
.219	-.071			-.019				.059			
.286	-.113			-.044				.023			
.331	-.162			-.086				-.005			
.353	-.132	-.153	-.243	-.061	-.078	-.152		.003	-.034	-.057	
.375	-.147			-.091				-.025			
.397		-.156	-.188		-.124	-.144			-.058	-.095	
.420	-.188	-.107	-.102	-.152	-.066	-.058		-.103	-.034	-.025	
.442	-.143	-.066	-.135	-.116	-.058	-.116		-.066	-.009	-.075	
.464	-.135	-.090	-.123	-.103	-.066	-.103		-.091	-.009	-.066	
.487	-.062	-.045	-.070	-.026	-.026	-.050		.024	.016	-.042	
.509	-.053	-.025	-.021	-.050	.003	-.009		-.042	.049	.003	
.531	-.017	-.012	-.008	.007	.015	.024		.065	.061	.044	
.554	.003			.014				.060			
.576	.006			.019				.057			
.598	-.019	-.005	-.077	.004	.016	-.045		.051	.081	-.007	
.620	-.072			-.035				.021			
.643	-.186	-.209	-.566	-.154	-.187	-.521		-.090	-.059	-.269	
.665	-.297	-.421	-1.059	-.291	-.330	-.960		-.214	-.279	-.687	
.687	-.471			-.437				-.397			
.710	-.517			-.517				-.493			
.732	-.459			-.462				-.484			

ALPHA = 10.01 DEG EFF. VEL. RATIO = .194				ALPHA = 11.97 DEG EFF. VEL. RATIO = .194				ALPHA = 14.00 DEG EFF. VEL. RATIO = .194			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.043			.070				.100			
.219	.085			.113				.158			
.286	.062			.113				.140			
.331	.010			.051				.075			
.353	.038	.006	-.023	.066	.059	.007		.081	.101	.028	
.375	-.005			.014				.040			
.397		-.041	-.086		-.015	-.076			.011	-.050	
.420	-.082	-.017	-.017	-.068	-.003	.006		-.046	.019	.031	
.442	-.066	.004	-.082	-.068	.067	-.072		-.050	.036	-.074	
.464	-.082	.008	-.058	-.060	.018	-.064		-.058	.036	-.058	
.487	.032	.045	-.033	.067	.067	-.048		.076	.089	-.022	
.509	.045	.053	.024	.047	.067	.022		.076	.072	.007	
.531	.069	.069	.057	.092	.075	.055		.113	.105	.056	
.554	.078			.093				.108			
.576	.088			.109				.137			
.598	.090	.101	.029	.128	.133	.069		.156	.166	.083	
.620	.056			.082				.160			
.643	-.041	-.014	-.177	.001	.065	-.021		-.061	.129	.097	
.665	-.158	-.160	-.651	-.148	-.120	-.663		-.038	-.049	-.648	
.687	-.363			-.338				-.224			
.710	-.495			-.456				-.420			
.732	-.501			-.515				-.512			

TABLE 19 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



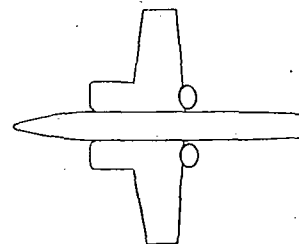
ALPHA = 16.01 DEG  
EFF. VEL. RATIO = .194

ALPHA = 17.97 DEG  
EFF. VEL. RATIO = .194

ALPHA = 20.01 DEG  
EFF. VEL. RATIO = .194

X/L	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.146			.182			.220		
.219	.188			.227			.255		
.286	.190			.219			.244		
.331	.126			.150			.188		
.353	.112	.106	.075	.174	.170	.103	.184	.192	.130
.375	.088			.124			.142		
.397		.047	-.023		.129	-.022		.089	.012
.420	-.019	.051	.063	-.022	.080	.080	.020	.110	.097
.442	-.031	.071	-.051	-.010	.092	-.030	.008	.101	-.037
.464	-.068	.051	-.064	-.043	.076	-.022	-.037	.097	-.037
.487	.092	.117	-.039	.120	.141	-.026	.126	.142	-.045
.509	.071	.092	.010	.104	.120	.018	.114	.118	.020
.531	.133	.112	.051	.145	.133	.059	.171	.138	.057
.554	.154			.161			.181		
.576	.175			.195			.218		
.598	.196	.215	.097	.221	.233	.123	.240	.241	.149
.620	.218			.220			.229		
.643	.143	.175	.215	.163	.227	.280	.178	.248	.271
.665	.028	.049	-.738	.048	.076	-.794	.062	.074	-.737
.687	-.188			-.138			-.126		
.710	-.368			-.362			-.369		
.732	-.502			-.495			-.533		

TABLE 19 (D)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES

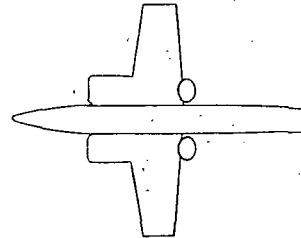


ALPHA = 0.00 DEG EFF. VEL. RATIO = .097				ALPHA = 4.06 DEG EFF. VEL. RATIO = .097				ALPHA = 7.99 DEG EFF. VEL. RATIO = .097			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.400			-.340				-.283			
.219	-.387			-.313				-.246			
.286	-.333			-.269				-.199			
.331	-.384			-.323				-.242			
.353	-.367	-.333	-.434	-.306	-.293	-.343		-.242	-.226	-.273	
.375	-.412			-.329				-.307			
.397		-.428	-.477		-.378	-.411			-.356	-.388	
.420	-.494	-.412	-.412	-.411	-.378	-.183		-.356	-.323	-.356	
.442	-.461	-.412	-.477	-.411	-.346	-.443		-.372	-.323	-.404	
.464	-.461	-.461	-.461	-.443	-.459	-.476		-.421	-.404	-.470	
.487	-.444	-.412	-.461	-.394	-.378	-.411		-.356	-.356	-.421	
.509	-.428	-.477	-.461	-.394	-.411	-.427		-.421	-.388	-.404	
.531	-.494	-.477	-.494	-.443	-.459	-.394		-.404	-.437	-.437	
.554	-.528			-.506				-.486			
.576	-.606			-.566				-.546			
.598	-.707	-.751	-.896	-.683	-.700	-.856		-.663	-.707	-.860	
.620	-.879			-.850				-.830			
.643	-1.014	-1.219	-1.638	-1.000	-1.200	-1.647		-1.021	-1.232	-1.713	
.665	-1.044	-1.105	-.754	-1.033	-1.103	-.863		-1.064	-1.188	-.998	
.687	-.855			-.920				-.944			
.710	-.596			-.636				-.687			
.732	-.410			-.446				-.493			

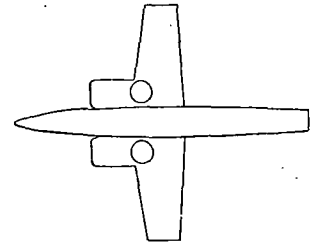
ALPHA = 10.04 DEG EFF. VEL. RATIO = .097				ALPHA = 12.02 DEG EFF. VEL. RATIO = .097				ALPHA = 14.04 DEG EFF. VEL. RATIO = .097			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.281			-.264				-.262			
.219	-.240			-.217				-.198			
.286	-.197			-.167				-.151			
.331	-.247			-.217				-.215			
.353	-.254	-.247	-.277	-.231	-.231	-.241		-.225	-.228	-.238	
.375	-.306			-.307				-.315			
.397		-.388	-.404		-.339	-.405			-.315	-.396	
.420	-.388	-.372	-.339	-.388	-.356	-.339		-.380	-.315	-.331	
.442	-.454	-.372	-.437	-.388	-.339	-.454		-.429	-.331	-.478	
.464	-.470	-.421	-.470	-.388	-.405	-.454		-.445	-.396	-.478	
.487	-.404	-.404	-.470	-.372	-.323	-.470		-.413	-.364	-.478	
.509	-.437	-.404	-.503	-.405	-.437	-.454		-.429	-.429	-.494	
.531	-.503	-.470	-.503	-.437	-.454	-.486		-.462	-.478	-.511	
.554	-.489			-.482				-.503			
.576	-.563			-.556				-.570			
.598	-.674	-.715	-.893	-.683	-.707	-.904		-.687	-.738	-.939	
.620	-.846			-.841				-.872			
.643	-1.034	-1.243	-1.805	-1.045	-1.277	-1.837		-1.080	-1.342	-2.009	
.665	-1.098	-1.257	-1.078	-1.143	-1.334	-1.153		-1.204	-1.435	-1.305	
.687	-.997			-1.019				-1.137			
.710	-.745			-.800				-.868			
.732	-.556			-.579				-.637			

TABLE 19 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 16.00 DEG EFF. VEL. RATIO = .096				ALPHA = 18.01 DEG EFF. VEL. RATIO = .096				ALPHA = 20.00 DEG EFF. VEL. RATIO = .097			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.247			-.215				-.202			
.219	-.193			-.157				-.152			
.286	-.159			-.137				-.098			
.331	-.210			-.184				-.165			
.353	-.227	-.240	-.254	-.201	-.215	-.215		-.182	-.182	-.219	
.375	-.292			-.260				-.275			
.397		-.325	-.375		-.326	-.441			-.357	-.407	
.420	-.375	-.375	-.309	-.392	-.293	-.343		-.407	-.357	-.341	
.442	-.457	-.309	-.457	-.409	-.343	-.458		-.439	-.341	-.489	
.464	-.457	-.424	-.474	-.441	-.376	-.507		-.472	-.390	-.521	
.487	-.408	-.424	-.523	-.425	-.425	-.573		-.390	-.374	-.571	
.509	-.457	-.441	-.507	-.441	-.458	-.557		-.505	-.472	-.571	
.531	-.457	-.507	-.523	-.458	-.474	-.540		-.456	-.489	-.571	
.554	-.501			-.508				-.522			
.576	-.583			-.593				-.600			
.598	-.719	-.766	-.977	-.714	-.765	-.988		-.721	-.785	-1.032	
.620	-.916			-.907				-.944			
.643	-1.140	-1.418	-2.186	-1.157	-1.413	-2.224		-1.177	-1.443	-2.333	
.665	-1.262	-1.530	-1.517	-1.285	-1.559	-1.559		-1.332	-1.618	-1.625	
.687	-1.187			-1.221				-1.227			
.710	-.984			-.998				-1.035			
.732	-.702			-.741				-.779			

TABLE 20 (A)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



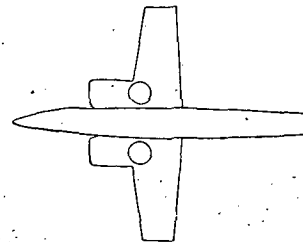
X/L	ALPHA = .02 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 4.04 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 8.03 DEG EFF. VEL. RATIO = $\infty$		
	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.013			.052			.110		
.219	.015			.070			.135		
.286	-.055			.012			.075		
.331	-.070			-.016			.058		
.353	-.003	-.057	-.118	.050	.000	-.044	.094	.056	.049
.375	-.017			.033			.078		
.397		.025	.025		.045	.084		.101	.116
.420	.025	.033	.046	.076	.066	.086	.117	.117	.120
.442	.072	.011	-.017	.113	.043	.050	.150	.076	.091
.464	.022	-.071	-.166	-.036	-.057	-.124	.075	-.016	-.052
.487	-.143	-.127	-.293	-.119	-.117	-.233	-.091	-.080	-.215
.509	-.219	-.232	-.363	-.212	-.204	-.333	-.156	-.178	-.290
.531	-.274	-.310	-.432	-.241	-.241	-.375	-.202	-.264	-.351
.554	-.286			-.263			-.246		
.576	-.267			-.245			-.226		
.598	-.223	-.259	-.330	-.193	-.217	-.274	-.182	-.173	-.203
.620	-.153			-.132			-.106		
.643	-.109	-.206	-.239	-.088	-.172	-.199	-.057	-.103	-.132
.665	-.074	-.179	-.147	-.048	-.132	-.141	-.014	-.106	-.111
.687	-.061			-.043			-.013		
.710	-.059			-.039			-.006		
.732	-.067			-.028			-.017		

X/L	ALPHA = 10.04 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 12.02 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 14.03 DEG EFF. VEL. RATIO = $\infty$		
	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.154			.172			.212		
.219	.189			.204			.243		
.286	.132			.165			.182		
.331	.089			.114			.137		
.353	.115	.098	.070	.143	.122	.102	.163	.133	.132
.375	.111			.126			.151		
.397		.118	.152		.127	.149		.151	.175
.420	.131	.127	.125	.148	.136	.122	.168	.157	.142
.442	.178	.097	.107	.187	.085	.125	.201	.111	.145
.464	.107	-.003	-.035	.117	-.002	-.046	.148	-.008	-.017
.487	-.080	-.063	-.177	-.082	-.064	-.167	-.064	-.060	-.156
.509	-.158	-.156	-.254	-.170	-.180	-.257	-.142	-.182	-.262
.531	-.186	-.231	-.341	-.220	-.221	-.349	-.211	-.232	-.327
.554	-.233			-.243			-.263		
.576	-.216			-.228			-.253		
.598	-.180	-.168	-.193	-.195	-.196	-.202	-.220	-.234	-.217
.620	-.108			-.124			-.171		
.643	-.046	-.087	-.121	-.072	-.089	-.135	-.106	-.113	-.161
.665	-.003	-.063	-.084	-.020	-.063	-.116	-.077	-.087	-.148
.687	.015			-.002			-.028		
.710	.004			.001			-.005		
.732	-.002			-.000			-.012		



TABLE 20 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



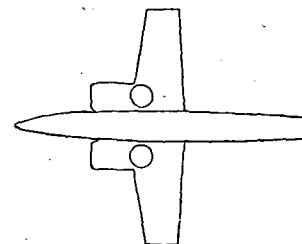
ALPHA = 16.02 DEG  
EFF. VEL. RATIO =  $\infty$

ALPHA = 18.02 DEG  
EFF. VEL. RATIO =  $\infty$

ALPHA = 20.04 DEG  
EFF. VEL. RATIO =  $\infty$

Y/YMAX =	CP			Y/YMAX =	CP			Y/YMAX =	CP		
	0.0	0.5	0.8		0.0	0.5	0.8		0.0	0.5	0.8
X/L											
.130	.249			.290				.322			
.219	.274			.318				.343			
.286	.229			.251				.296			
.331	.169			.199				.228			
.353	.191	.160	.161	.210	.181	.184		.245	.219	.227	
.375	.150			.172				.213			
.397		.152	.192		.164	.183			.188	.217	
.420	.180	.151	.143	.198	.158	.155		.213	.190	.184	
.442	.214	.103	.146	.209	.117	.144		.230	.151	.178	
.464	.138	-.003	-.001	.136	.004	.001		.168	.027	.027	
.487	-.070	-.065	-.164	-.081	-.058	-.147		-.040	-.064	-.100	
.509	-.160	-.172	-.275	-.142	-.178	-.287		-.126	-.151	-.219	
.531	-.211	-.275	-.328	-.182	-.262	-.356		-.176	-.204	-.355	
.554	-.255			-.254				-.230			
.576	-.259			-.248				-.236			
.598	-.235	-.250	-.256	-.232	-.245	-.242		-.220	-.244	-.267	
.620	-.179			-.178				-.185			
.643	-.146	-.121	-.155	-.140	-.119	-.130		-.147	-.132	-.122	
.665	-.088	-.089	-.143	-.088	-.081	-.113		-.100	-.097	-.108	
.687	-.048			-.067				-.067			
.710	-.022			-.043				-.048			
.732	-.023			-.026				-.037			

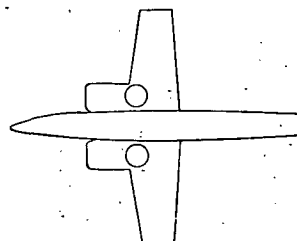
TABLE 20 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = .01 DEG EFF. VEL. RATIO = .302				ALPHA = 4.01 DEG EFF. VEL. RATIO = .302				ALPHA = 8.03 DEG EFF. VEL. RATIO = .302			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.102			.167				.210			
.219	.219			.299				.351			
.286	.309			.374				.438			
.331	.377			.443				.493			
.353	.409	.402	.397	.477	.463	.467		.535	.532	.522	
.375	.309			.269				.413			
.397		.350	.449		.374	.313			.463	.647	
.420	.450	.403	.295	.430	.284	.366		.472	.344	.203	
.442	.408	-.158	-.164	.317	-.169	-.134		.468	-.160	-.087	
.464	-.254	-.715	-1.854	-.366	-.880	-1.824		-.074	-.693	-1.751	
.487	-1.106	-1.179	-1.938	-1.291	-1.167	-1.890		-1.077	-.996	-1.692	
.509	-1.240	-1.616	-1.163	-1.287	-1.603	-1.748		-1.219	-1.409	-1.608	
.531	-1.260	-1.568	-1.331	-1.587	-1.611	-1.475		-1.650	-1.221	-1.438	
.554	-1.151			-1.222				-1.265			
.576	-.924			-1.043				-1.124			
.598	-.566	-.606	-.912	-.741	-.853	-.933		-.871	-.975	-1.082	
.620	-.389			-.507				-.632			
.643	-.260	-.193	-.859	-.428	-.380	-.716		-.436	-.490	-.601	
.665	-.183	-.193	-.872	-.253	-.313	-.968		-.386	-.316	-.541	
.687	-.104			-.216				-.309			
.710	-.077			-.118				-.182			
.732	-.054			-.105				-.142			

ALPHA = 10.02 DEG EFF. VEL. RATIO = .302				ALPHA = 12.02 DEG EFF. VEL. RATIO = .301				ALPHA = 14.01 DEG EFF. VEL. RATIO = .301			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.244			.281				.330			
.219	.392			.418				.458			
.286	.463			.514				.530			
.331	.513			.543				.568			
.353	.563	.554	.548	.578	.580	.578		.605	.603	.597	
.375	.431			.538				.595			
.397		.514	.576		.587	.699			.540	.700	
.420	.633	.420	.503	.594	.558	.457		.629	.292	.573	
.442	.595	.079	.040	.541	.072	.028		.423	.044	-.047	
.464	-.032	-.970	-1.877	-.029	-.872	-1.535		-.129	-.806	-1.596	
.487	-1.048	-1.026	-1.671	-.809	-.934	-1.776		-1.005	-1.047	-1.866	
.509	-1.274	-1.533	-1.757	-1.210	-1.422	-1.804		-1.313	-1.532	-1.503	
.531	-1.274	-1.560	-1.053	-1.402	-1.742	-1.681		-1.452	-1.481	-1.745	
.554	-1.280			-1.281				-1.257			
.576	-1.115			-1.090				-1.151			
.598	-.843	-1.050	-1.122	-.826	-1.033	-1.224		-.921	-1.088	-1.204	
.620	-.592			-.601				-.688			
.643	-.432	-.561	-.557	-.464	-.502	-.574		-.528	-.618	-.598	
.665	-.385	-.353	-.474	-.398	-.382	-.516		-.447	-.446	-.467	
.687	-.289			-.265				-.386			
.710	-.224			-.203				-.293			
.732	-.118			-.122				-.203			

TABLE 20 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



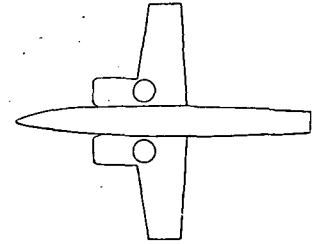
ALPHA = 16.04 DEG  
EFF. VEL. RATIO = .302

ALPHA = 18.03 DEG  
EFF. VEL. RATIO = .302

ALPHA = 20.02 DEG  
EFF. VEL. RATIO = .302

X/L	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.359			.401			.426		
.219	.501			.526			.553		
.286	.576			.604			.629		
.331	.607			.622			.644		
.353	.631	.625	.620	.653	.644	.638	.658	.661	.643
.375	.760			.568			.679		
.397		.527	.756		.601	.801		.668	.537
.420	.865	.616	.545	.669	.421	.454	.623	.449	.462
.442	.701	.132	.199	.709	-.023	.197	.477	-.115	-.099
.464	-.098	-.620	-1.801	.065	-.707	-1.570	-.225	-1.088	-1.611
.487	-.887	-.685	-1.783	-.916	-.752	-1.625	-.935	-.778	-1.748
.509	-.833	-1.222	-1.239	-.985	-1.284	-1.746	-1.178	-1.271	-1.452
.531	-1.135	-1.639	-1.501	-1.257	-1.220	-1.286	-1.220	-1.428	-1.698
.554	-1.228			-1.232			-1.225		
.576	-1.104			-1.103			-1.116		
.598	-.933	-1.078	-1.318	-.986	-1.122	-1.230	-.980	-1.164	-1.158
.620	-.753			-.734			-.790		
.643	-.652	-.817	-.699	-.676	-.824	-.747	-.730	-.868	-.939
.665	-.530	-.589	-.528	-.555	-.606	-.606	-.630	-.692	-.738
.687	-.419			-.461			-.540		
.710	-.352			-.434			-.466		
.732	-.306			-.324			-.354		

TABLE 20-(C)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES

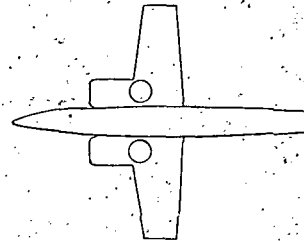


ALPHA = .00 DEG EFF. VEL. RATIO = .203				ALPHA = 4.00 DEG EFF. VEL. RATIO = .202				ALPHA = 7.98 DEG EFF. VEL. RATIO = .201			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.045			.098				.158			
.219	.127			.187				.253			
.286	.172			.234				.313			
.331	.165			.215				.295			
.353	.160	.143	.169	.209	.211	.241		.276	.274	.296	
.375	.007			-.389				.389			
.357		-.242	-.209		-.306	-.117			.233	.040	
.420	-.445	-.943	-.987	-.306	-.829	-1.187		.159	-.335	-.750	
.442	-.890	-1.407	-4.285	-.998	-1.422	-4.081		-.211	-1.400	-3.421	
.464	-4.529	-3.425	-4.171	-5.023	-3.735	-4.846		-3.766	-2.927	-3.684	
.487	-2.504	-3.172	-2.944	-2.228	-2.249	-2.385		-2.199	-2.186	-1.944	
.509	-2.006	-2.349	-4.790	-2.035	-2.829	-4.410		-2.009	-2.602	-4.268	
.531	-.951	-2.752	-3.229	-2.138	-2.920	-2.825		-1.302	-.960	-2.462	
.554	-.949			-.865				-.963			
.576	-.479			-.519				-.466			
.598	-.366	-.347	-.876	-.295	-.519	-1.305		-.248	-.299	-1.211	
.620	-.140			-.166				-.212			
.643	-.190	-.227	-.929	-.146	-.316	-1.030		-.141	-.347	-1.306	
.665	-.098	-.129	-.740	-.072	-.115	-.848		-.085	-.264	-.979	
.687	.013			-.102				-.052			
.710	.030			-.013				-.009			
.732	.060			.070				-.007			

ALPHA =10.02 DEG EFF. VEL. RATIO = .202				ALPHA =12.00 DEG EFF. VEL. RATIO = .202				ALPHA =13.98 DEG EFF. VEL. RATIO = .202			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.209			.266				.282			
.219	.301			.349				.394			
.286	.372			.430				.461			
.331	.324			.386				.438			
.353	.319	.316	.348	.370	.376	.386		.419	.421	.423	
.375	.146			.008				.306			
.397		-.310	-.014		-.325	-.303			.326	.228	
.420	.093	-.795	-.627	-.321	-.755	-.571		.191	-.465	-.215	
.442	-.684	-1.461	-3.077	-.251	-1.227	-3.496		.015	-1.506	-2.973	
.464	-3.509	-3.023	-5.210	-1.978	-2.921	-5.087		-2.604	-2.932	-4.264	
.487	-2.588	-2.226	-2.658	-2.519	-2.753	-2.441		-2.281	-2.121	-2.801	
.509	-2.954	-2.501	-4.655	-1.863	-2.876	-3.980		-2.481	-2.453	-4.133	
.531	-.845	-3.011	-3.488	-1.559	-2.757	-3.249		-1.654	-2.436	-3.182	
.554	-1.004			-.995				-1.156			
.576	-.475			-.539				-.496			
.598	-.310	-.512	-1.295	-.368	-.386	-1.460		-.414	-.590	-1.484	
.620	-.237			-.350				-.297			
.643	-.214	-.368	-1.234	-.213	-.276	-1.353		-.234	-.381	-1.380	
.665	-.189	-.214	-.899	-.196	-.210	-.984		-.208	-.222	-1.041	
.687	-.072			-.092				-.103			
.710	.022			-.015				-.027			
.732	.021			.041				.011			

TABLE 20 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



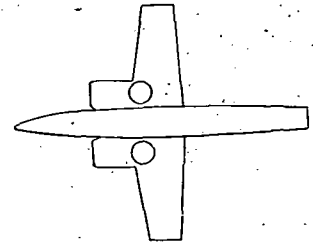
ALPHA = 16.01 DEG  
EFF. VEL. RATIO = .202

ALPHA = 17.99 DEG  
EFF. VEL. RATIO = .202

ALPHA = 20.02 DEG  
EFF. VEL. RATIO = .202

CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.334			.369				.402			
.219	.432			.468				.512			
.286	.496			.530				.601			
.331	.452			.479				.557			
.353	.455	.443	.447	.478	.489	.458		.527	.515	.494	
.375	.080			.995				.720			
.397		.064	-.263		.731	.292			.401	.581	
.420	.366	-.304	-.034	.511	.312	.357		.348	.045	.557	
.442	-.202	-1.063	-3.125	.410	-.115	-2.103		.467	-.532	-2.082	
.464	-1.055	-2.888	-4.444	-1.717	-2.099	-5.050		-1.677	-2.406	-6.125	
.487	-2.345	-1.541	-2.631	-1.859	-1.895	-1.761		-1.788	-1.739	-2.107	
.509	-2.194	-2.664	-3.721	-1.879	-1.973	-3.355		-2.835	-2.140	-3.527	
.531	-2.059	-2.100	-2.986	-1.351	-2.700	-2.883		-1.407	-1.244	-2.823	
.554	-1.238			-1.318				-1.564			
.576	-.884			-.820				-1.007			
.598	-.534	-.564	-1.623	-.563	-.612	-1.403		-.626	-.538	-1.231	
.620	-.367			-.530				-.449			
.643	-.267	-.336	-1.380	-.351	-.451	-1.593		-.447	-.570	-1.743	
.665	-.230	-.244	-1.055	-.274	-.367	-1.366		-.281	-.370	-1.479	
.687	-.165			-.194				-.267			
.710	-.109			-.112				-.148			
.732	-.005			-.033				-.088			

TABLE 20 (D)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES

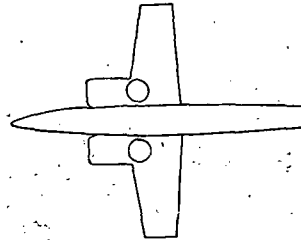


ALPHA = -0.01 DEG EFF. VEL. RATIO = .100				ALPHA = 4.02 DEG EFF. VEL. RATIO = .100				ALPHA = 8.00 DEG EFF. VEL. RATIO = .100			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.064			.149				.220			
.219	.074			.139				.220			
.286	.044			.119				.192			
.331	-.134			-.072				-.030			
.353	-.263	-.253	-.178	-.211	-.187	-.099		-.157	-.150	-.013	
.375	-.203			-.397				-.353			
.397		.644	-2.561		.033	-1.754			-.186	-.987	
.420	-.070	-1.698	-1.681	-.910	-2.350	-1.175		-.169	-3.441	-2.022	
.442	-1.714	-1.930	-3.060	-2.002	-2.532	-2.780		-2.122	-1.588	-3.291	
.464	-4.288	-2.445	-1.548	-6.636	-3.194	-2.896		-2.773	-3.775	-1.922	
.487	-1.233	1.972	-7.410	-.811	-2.135	-6.636		-.553	-.937	-7.297	
.509	-4.919	-2.794	-3.940	-3.061	-1.820	-4.865		-3.241	-2.556	-4.710	
.531	.378	.046	-2.644	-.579	-3.210	-3.392		-1.254	-.753	-3.191	
.554	-.611			-.731				-.555			
.576	-.989			-.833				-.390			
.598	-.601	-1.290	-1.992	-.374	-1.095	-2.104		-.740	-.744	-1.823	
.620	-.485			-.418				-.363			
.643	-.256	-.345	-1.010	-.092	-.041	-.755		-.236	-.205	-.449	
.665	.115	-.110	-.536	.119	.044	-.269		.031	.148	.007	
.687	.265			.169				.182			
.710	.265			.343				.179			
.732	.313			.356				.384			

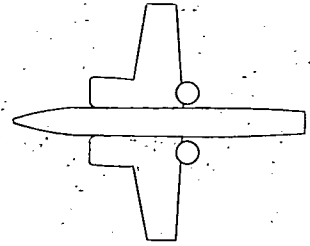
ALPHA = 10.01 DEG EFF. VEL. RATIO = .100				ALPHA = 11.99 DEG EFF. VEL. RATIO = .100				ALPHA = 14.02 DEG EFF. VEL. RATIO = .100			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.273			.335				.392			
.219	.284			.420				.402			
.286	.263			.304				.368			
.331	.047			.100				.147			
.353	-.108	-.070	.009	-.064	-.040	.086		-.007	.021	.130	
.375	.231			.801				.823			
.397		-.572	-.204		-1.840	-1.093			-.503	-1.995	
.420	-.371	-1.859	-1.792	-1.342	-3.650	-2.122		-.752	-3.852	-2.343	
.442	-2.110	-2.378	-2.930	-4.264	-3.517	-2.952		-2.807	-2.923	-4.730	
.464	-2.294	-2.194	-4.585	-2.255	-3.434	-5.310		-5.907	-3.321	-4.432	
.487	-1.140	-1.960	-10.238	-2.986	-3.251	-12.152		-3.338	-1.647	-9.040	
.509	-.471	-1.341	-5.856	-4.613	-3.617	-8.067		-2.923	-1.730	-5.426	
.531	-2.746	-2.110	-1.943	-2.654	-.927	-2.952		-2.128	-4.100	-2.227	
.554	-.489			-.446				-.279			
.576	-.537			-.374				-.350			
.598	-.510	-.468	-1.423	-.402	-.432	-.845		-.306	-.544	-.738	
.620	-.386			-.170				-.170			
.643	.043	-.187	-.207	.045	.062	-.385		-.017	-.109	-.275	
.665	.194	.088	-.128	.205	.164	.079		.106	.082	.150	
.687	.249			.168				.296			
.710	.328			.369				.392			
.732	.359			.492				.385			

TABLE 20 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 15.98 DEG EFF. VEL. RATIO = .100				ALPHA = 18.00 DEG EFF. VEL. RATIO = .101				ALPHA = 19.99 DEG EFF. VEL. RATIO = .101			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.437			.465				.518			
.219	.471			.485				.518			
.286	.403			.472				.491			
.331	.181			.239				.259			
.353	.028	.069	.191	.087	.117	.198		.091	.104	.259	
.375	-.756			-1.396				.862			
.397		-1.038	-.623		-1.939	-1.001			-1.381	.289	
.420	-1.238	-2.068	-1.537	-.540	-2.713	-1.067		.027	-1.774	-1.119	
.442	-2.981	-3.645	-3.430	-2.203	-3.026	-2.647		-1.823	-1.594	-2.789	
.464	-2.666	-4.492	-5.107	-5.232	-3.553	-4.524		-1.774	-2.691	-4.493	
.487	-2.583	-.939	-14.373	-.655	-2.285	-16.853		-1.512	-1.316	-19.656	
.509	-5.157	-1.437	-8.511	-2.071	-1.594	-6.795		-3.019	-2.953	-4.198	
.531	-.042	-1.337	-1.570	-.721	1.090	-2.483		-.333	1.305	-.857	
.554	-.347			-.255				-.279			
.576	-.457			-.126				-.222			
.598	-.218	-.361	-1.002	-.262	-.515	-.938		-.101	-.558	-.716	
.620	-.109			-.045				-.064			
.643	.202	.048	-.266	.019	-.197	-.096		.205	.212	.071	
.665	.120	.280	.260	.174	.137	.026		.205	.299	.202	
.687	.277			.333				.293			
.710	.464			.512				.468			
.732	.491			.482				.501			

TABLE 21 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



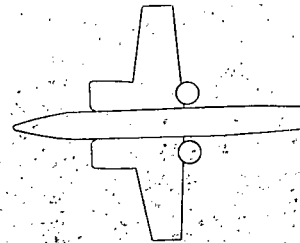
ALPHA = -0.00 DEG EFF. VEL. RATIO = ∞				ALPHA = 3.99 DEG EFF. VEL. RATIO = ∞				ALPHA = 8.05 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.024			.029				.089			
.219	-.033			.033				.104			
.286	-.127			-.062				.030			
.331	-.188			-.116				-.032			
.353	-.142	-.201	-.276	-.079	-.130	-.181		-.026	-.053	-.110	
.375	-.150			-.093				-.035			
.397		-.139	-.170		-.102	-.131			-.052	-.075	
.420	-.163	-.089	-.097	-.131	-.056	-.057		-.075	-.006	-.003	
.442	-.114	-.030	-.089	-.078	-.008	-.063		-.036	-.001	-.028	
.464	-.088	-.042	-.046	-.059	-.021	-.035		-.020	.015	-.009	
.487	.001	-.001	.017	-.017	.013	.020		.050	.062	.058	
.509	.037	.050	.078	.050	.066	.096		.080	.095	.117	
.531	.061	.087	.131	.076	.098	.147		.099	.123	.173	
.554	.091			.090				.103			
.576	.104			.096				.103			
.598	.088	.098	.140	.074	.096	.146		.070	.100	.169	
.620	.040			.020				.015			
.643	-.019	-.099	-.281	-.048	-.113	-.293		-.061	-.128	-.314	
.665	-.059	-.141	-.320	-.094	-.153	-.345		-.114	-.186	-.381	
.687	-.094			-.118				-.144			
.710	-.108			-.130				-.144			
.732	-.109			-.124				-.131			

ALPHA = 10.00 DEG EFF. VEL. RATIO = ∞				ALPHA = 11.99 DEG EFF. VEL. RATIO = ∞				ALPHA = 14.04 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.120			.155				.192			
.219	.136			.167				.218			
.286	.081			.108				.146			
.331	-.001			.027				.066			
.353	.011	-.026	-.057	.058	.021	-.027		.079	.036	.018	
.375	-.006			.018				.044			
.397		-.023	-.055		-.006	-.034			.016	-.016	
.420	-.057	.013	.018	-.032	.034	.034		-.018	.057	.062	
.442	-.016	.031	-.011	-.002	.044	-.006		.010	.058	.005	
.464	-.012	.035	.001	-.011	.043	.013		.013	.058	.001	
.487	.065	.086	.062	.081	.086	.062		.099	.107	.058	
.509	.097	.101	.129	.104	.111	.133		.115	.117	.130	
.531	.105	.133	.185	.112	.134	.185		.111	.132	.183	
.554	.113			.111				.117			
.576	.106			.105				.105			
.598	.071	.105	.176	.068	.104	.185		.066	.112	.194	
.620	.013			.006				-.001			
.643	-.070	-.138	-.316	-.076	-.142	-.315		-.103	-.148	-.308	
.665	-.127	-.180	-.399	-.138	-.207	-.412		-.165	-.239	-.437	
.687	-.156			-.167				-.208			
.710	-.157			-.185				-.216			
.732	-.144			-.154				-.197			



TABLE 21 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



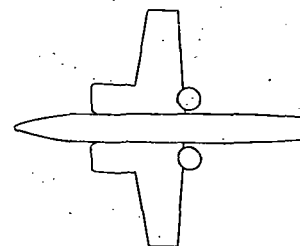
ALPHA = 16.01 DEG  
EFF. VEL. RATIO =  $\infty$

ALPHA = 18.02 DEG  
EFF. VEL. RATIO =  $\infty$

ALPHA = 20.02 DEG  
EFF. VEL. RATIO =  $\infty$

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.231			.278			.308		
.219	.249			.281			.327		
.286	.179			.209			.260		
.331	.099			.131			.170		
.353	.118	.090	.049	.147	.114	.088	.175	.152	.117
.375	.080			.114			.138		
.397		.043	-.008		.074	.020		.115	.038
.420	.004	.069	.068	.025	.098	.101	.037	.123	.131
.442	.016	.084	.012	.028	.104	.023	.053	.121	.040
.464	.016	.090	.025	.023	.088	.026	.016	.114	.046
.487	.105	.120	.067	.132	.114	.085	.146	.143	.100
.509	.125	.127	.139	.139	.143	.139	.153	.156	.151
.531	.128	.148	.193	.135	.207	.195	.151	.169	.202
.554	.117			.133			.140		
.576	.104			.112			.119		
.598	.059	.105	.195	.062	.114	.204	.064	.119	.214
.620	-.012			-.011			-.017		
.643	-.111	-.157	-.312	-.114	-.158	-.315	-.121	-.162	-.301
.665	-.192	-.270	-.464	-.200	-.270	-.470	-.209	-.276	-.464
.687	-.229			-.266			-.268		
.710	-.247			-.279			-.295		
.732	-.220			-.258			-.263		

TABLE 21 (B)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES

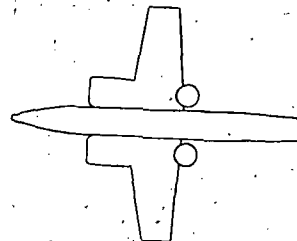


ALPHA = .00 DEG EFF. VEL. RATIO = .294				ALPHA = 4.02 DEG EFF. VEL. RATIO = .294				ALPHA = 8.04 DEG EFF. VEL. RATIO = .294			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.006			.055				.111			
.219	.029			.095				.161			
.286	.010			.062				.158			
.331	-.022			.052				.115			
.353	.039	-.032	-.085	.091	.038	-.015		.158	.121	.075	
.375	.013			.082				.139			
.397		.019	-.031		.074	.012			.116	.065	
.420	-.032	.085	.079	.016	.122	.126		.063	.161	.156	
.442	.033	.156	.063	.067	.155	.073		.094	.191	.103	
.464	.059	.160	.103	.071	.181	.100		.107	.220	.139	
.487	.205	.209	.158	.232	.245	.164		.267	.275	.163	
.509	.235	.240	.211	.252	.261	.219		.289	.291	.240	
.531	.205	.237	.251	.225	.261	.263		.260	.286	.262	
.554	.106			.115				.144			
.576	-.137			-.122				-.087			
.598	-.568	-.664	-1.872	-.553	-.643	-1.851		-.524	-.651	-1.853	
.620	-1.040			-1.043				-1.006			
.643	-1.291	-1.749	-2.552	-1.295	-1.796	-2.667		-1.291	-1.954	-2.863	
.665	-1.166	-1.688	-1.787	-1.174	-1.753	-1.776		-1.202	-1.821	-1.556	
.687	-.901			-.877				-.885			
.710	-.606			-.597				-.547			
.732	-.526			-.514				-.431			

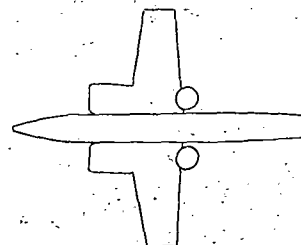
ALPHA = 10.02 DEG EFF. VEL. RATIO = .294				ALPHA = 12.02 DEG EFF. VEL. RATIO = .294				ALPHA = 14.01 DEG EFF. VEL. RATIO = .294			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.157			.192				.226			
.219	.202			.230				.277			
.286	.196			.250				.289			
.331	.152			.209				.232			
.353	.202	.155	.118	.248	.202	.160		.286	.243	.204	
.375	.182			.223				.255			
.397		.158	.090		.210	.130			.237	.153	
.420	.087	.195	.207	.131	.235	.228		.157	.259	.253	
.442	.116	.226	.125	.148	.268	.142		.180	.288	.160	
.464	.116	.247	.145	.148	.268	.166		.168	.308	.186	
.487	.306	.320	.191	.321	.326	.188		.355	.332	.217	
.509	.304	.304	.238	.336	.330	.252		.372	.372	.273	
.531	.273	.291	.268	.323	.325	.290		.350	.354	.304	
.554	.179			.210				.269			
.576	-.059			.005				.057			
.598	-.470	-.635	-2.014	-.349	-.624	-1.985		-.294	-.528	-1.887	
.620	-.947			-.892				-.771			
.643	-1.329	-2.035	-2.999	-1.320	-2.029	-3.141		-1.193	-1.880	-3.050	
.665	-1.285	-1.876	-1.542	-1.373	-1.945	-1.711		-1.358	-1.918	-2.135	
.687	-.967			-1.124				-1.235			
.710	-.614			-.764				-.977			
.732	-.389			-.463				-.667			

TABLE 21 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.01 DEG EFF. VEL. RATIO = .294				ALPHA = 18.01 DEG EFF. VEL. RATIO = .293				ALPHA = 20.00 DEG EFF. VEL. RATIO = .293			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.254			.296				.348			
.219	.307			.371				.394			
.286	.327			.359				.408			
.331	.292			.328				.378			
.353	.312	.283	.244	.346	.316	.265		.388	.351	.313	
.375	.270			.314				.360			
.397		.269	.175		.299	.193			.324	.216	
.420	.166	.301	.311	.182	.328	.336		.212	.351	.357	
.442	.185	.312	.179	.213	.336	.197		.210	.360	.221	
.464	.212	.320	.208	.181	.354	.208		.205	.373	.210	
.487	.358	.385	.230	.387	.350	.223		.415	.430	.225	
.509	.396	.373	.269	.410	.394	.285		.422	.413	.273	
.531	.382	.382	.298	.365	.372	.308		.393	.408	.327	
.554	.282			.248				.282			
.576	.119			.010				.044			
.598	-.239	-.533	-1.857	-.221	-.503	-1.729		-.382	-.483	-1.718	
.620	-.688			-.910				-.838			
.643	-1.262	-1.799	-2.598	-1.228	-1.588	-2.444		-1.166	-1.614	-2.310	
.665	-1.237	-1.870	-2.253	-1.215	-1.652	-2.150		-1.185	-1.615	-2.012	
.687	-1.247			-1.129				-1.085			
.710	-1.117			-.999				-1.024			
.732	-.899			-.880				-.933			

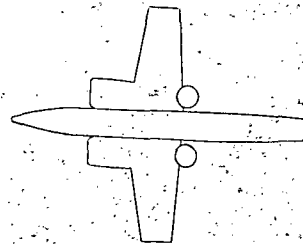
TABLE 21 (c)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .01 DEG EFF. VEL. RATIO = .196				ALPHA = 4.00 DEG EFF. VEL. RATIO = .196				ALPHA = 8.02 DEG EFF. VEL. RATIO = .196			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.017			.022				.079			
.219	.008			.042				.119			
.286	-.016			.040				.125			
.331	-.039			.008				.072			
.353	.002	-.055	-.117	.041	-.004	-.047		.099	.055	.022	
.375	-.017			.024				.069			
.397		-.045	-.090		-.013	-.066			.032	-.038	
.420	-.086	-.004	-.017	-.054	.032	.044		-.046	.057	.053	
.442	-.057	.004	-.070	-.049	.028	-.098		-.042	.044	-.062	
.464	-.070	.008	-.041	-.086	.012	-.070		-.079	.036	-.075	
.487	.024	.041	-.025	.032	.024	-.058		.061	.081	-.070	
.509	-.029	-.021	-.017	-.029	-.017	-.037		-.009	-.009	-.066	
.531	-.188	-.110	-.086	-.180	-.131	-.103		-.169	-.112	-.124	
.554	-.507			-.499				-.492			
.576	-1.124			-1.156				-1.120			
.598	-1.981	-2.808	-4.511	-2.019	-2.911	-4.611		-1.985	-2.870	-4.572	
.620	-2.454			-2.464				-2.509			
.643	-1.986	-1.940	-2.174	-2.012	-2.194	-2.218		-2.063	-2.367	-2.283	
.665	-.942	-.794	-1.384	-1.005	-.861	-1.299		-1.065	-.834	-1.298	
.687	-.615			-.617				-.638			
.710	-.610			-.588				-.556			
.732	-.524			-.523				-.476			

ALPHA = 10.00 DEG EFF. VEL. RATIO = .195				ALPHA = 12.02 DEG EFF. VEL. RATIO = .196				ALPHA = 14.00 DEG EFF. VEL. RATIO = .196			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.102			.128				.175			
.219	.154			.182				.232			
.286	.156			.192				.237			
.331	.113			.142				.177			
.353	.132	.088	.051	.160	.118	.081		.192	.149	.107	
.375	.095			.115				.169			
.397		.062	-.025		.099	-.004			.104	.014	
.420	-.033	.078	.099	.013	.103	.115		.046	.149	.173	
.442	-.004	.070	-.058	-.004	.095	-.045		.018	-.124	-.031	
.464	-.049	.058	-.082	-.045	.074	-.069		-.044	.112	-.056	
.487	.058	.037	-.086	.091	.095	-.074		.116	.116	-.064	
.509	.016	.000	-.066	.029	.017	-.061		.046	.059	-.056	
.531	-.156	-.115	-.119	-.131	-.115	-.131		-.101	-.081	-.126	
.554	-.500			-.480				-.461			
.576	-1.123			-1.132				-1.070			
.598	-2.028	-2.914	-4.640	-2.018	-2.888	-4.667		-2.005	-2.830	-4.772	
.620	-2.546			-2.603				-2.590			
.643	-2.064	-2.461	-2.304	-2.131	-2.502	-2.322		-2.202	-2.927	-2.331	
.665	-1.077	-.791	-1.312	-1.140	-.857	-1.309		-1.249	-.822	-1.242	
.687	-.658			-.604				-.647			
.710	-.568			-.541				-.546			
.732	-.488			-.478				-.508			

TABLE 21 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



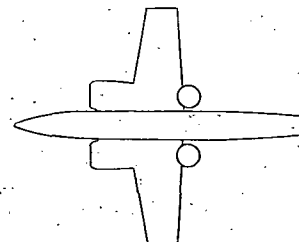
ALPHA = 15.98 DEG  
EFF. VEL. RATIO = .197

ALPHA = 18.03 DEG  
EFF. VEL. RATIO = .197

ALPHA = 19.99 DEG  
EFF. VEL. RATIO = .196

X/L	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.211			.258			.274		
.219	.276			.299			.343		
.286	.273			.327			.359		
.331	.231			.259			.294		
.353	.219	.195	.158	.269	.234	.179	.309	.281	.216
.375	.200			.232			.250		
.397		.143	.037		.183	.069		.185	.058
.420	.037	.159	.176	.057	.183	.187	.050	.205	.176
.442	.028	.151	-.025	.040	.175	-.008	.054	.205	.009
.464	-.045	.135	-.066	.012	.142	-.045	-.028	.176	-.040
.487	.127	.139	-.070	.158	.179	-.078	.189	.213	-.065
.509	.069	.069	-.061	.093	.101	-.074	.111	.107	-.065
.531	-.078	-.053	-.123	-.053	-.025	-.102	-.032	-.016	-.122
.554	-.413			-.372			-.350		
.576	-1.033			-.945			-.908		
.598	-1.978	-2.780	-4.865	-1.865	-2.763	-4.888	-1.804	-2.654	-4.959
.620	-2.577			-2.581			-2.493		
.643	-2.422	-3.244	-2.318	-2.450	-3.446	-2.423	-2.448	-3.644	-2.406
.665	-1.576	-1.004	-1.211	-1.627	-1.222	-1.185	-1.776	-1.526	-1.340
.687	-.833			-.887			-1.049		
.710	-.493			-.533			-.593		
.732	-.477			-.496			-.547		

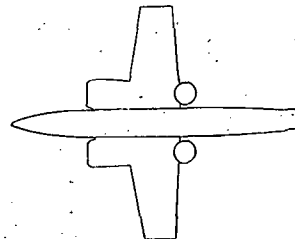
TABLE 21 (D)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG EFF. VEL. RATIO = .098				ALPHA = 3.99 DEG EFF. VEL. RATIO = .098				ALPHA = 7.98 DEG EFF. VEL. RATIO = .097			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.280			-.196				-.171			
.219	-.280			-.192				-.147			
.286	-.277			-.172				-.130			
.331	-.334			-.243				-.219			
.353	-.348	-.378	-.402	-.260	-.284	-.290		-.229	-.253	-.284	
.375	-.420			-.322				-.302			
.397		-.503	-.569		-.388	-.420			-.386	-.435	
.420	-.552	-.503	-.569	-.420	-.404	-.338		-.352	-.419	-.352	
.442	-.536	-.486	-.980	-.437	-.437	-.519		-.452	-.435	-.502	
.464	-.503	-.618	-.601	-.453	-.519	-.569		-.502	-.519	-.585	
.487	-.717	-.684	-.634	-.618	-.585	-.585		-.635	-.485	-.618	
.509	-.865	-.782	-.700	-.799	-.766	-.651		-.818	-.801	-.718	
.531	-1.194	-1.062	-.881	-1.144	-1.046	-.881		-1.200	-1.084	-.901	
.554	-1.685			-1.706				-1.775			
.576	-2.358			-2.446				-2.513			
.598	-2.530	-2.604	-3.284	-2.814	-3.125	-3.655		-2.888	-3.182	-3.684	
.620	-1.723			-2.294				-2.383			
.643	-1.371	-1.560	-1.993	-.986	-1.817	-1.983		-.956	-1.826	-2.052	
.665	-1.341	-1.476	-1.300	-.722	-1.094	-1.199		-.689	-1.062	-1.208	
.687	-.918			-.658				-.662			
.710	-.766			-.601				-.580			
.732	-.611			-.554				-.529			

ALPHA = 10.04 DEG EFF. VEL. RATIO = .098				ALPHA = 11.97 DEG EFF. VEL. RATIO = .098				ALPHA = 14.01 DEG EFF. VEL. RATIO = .098			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.132			-.149				-.130			
.219	-.115			-.095				-.103			
.286	-.095			-.081				-.079			
.331	-.177			-.175				-.154			
.353	-.204	-.224	-.248	-.192	-.223	-.253		-.198	-.215	-.225	
.375	-.258			-.306				-.273			
.397		-.340	-.423		-.387	-.469			-.355	-.404	
.420	-.456	-.357	-.340	-.420	-.387	-.355		-.371	-.355	-.371	
.442	-.439	-.423	-.505	-.469	-.420	-.584		-.437	-.437	-.552	
.464	-.604	-.538	-.637	-.535	-.535	-.535		-.503	-.519	-.618	
.487	-.604	-.555	-.621	-.649	-.535	-.682		-.651	-.618	-.684	
.509	-.836	-.786	-.720	-.862	-.797	-.780		-.832	-.816	-.750	
.531	-1.182	-1.100	-.935	-1.222	-1.091	-.944		-1.227	-1.112	-.980	
.554	-1.797			-1.836				-1.883			
.576	-2.563			-2.656				-2.667			
.598	-2.950	-3.316	-3.838	-3.069	-3.442	-4.017		-3.062	-3.461	-4.015	
.620	-2.516			-2.609				-2.660			
.643	-1.095	-1.949	-2.129	-1.012	-1.889	-2.192		-1.177	-1.660	-2.208	
.665	-.702	-.997	-1.210	-.689	-1.116	-1.254		-.728	-1.093	-1.251	
.687	-.681			-.703				-.718			
.710	-.627			-.646				-.647			
.732	-.532			-.568				-.525			

TABLE 21 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 16.03 DEG  
EFF. VEL. RATIO = .097

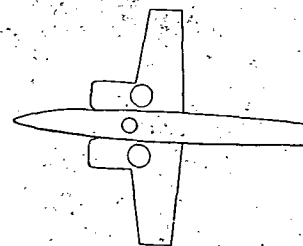
ALPHA = 18.00 DEG  
EFF. VEL. RATIO = .098

ALPHA = 20.00 DEG  
EFF. VEL. RATIO = .098

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.126			-.090			-.062		
.219	-.106			-.036			-.038		
.286	-.058			-.012			-.011		
.331	-.167			-.103			-.116		
.353	-.195	-.201	-.225	-.117	-.158	-.185	-.130	-.174	-.184
.375	-.251			-.278			-.218		
.397		-.351	-.434		-.344	-.377		-.349	-.448
.420	-.500	-.400	-.417	-.377	-.344	-.145	-.399	-.399	-.349
.442	-.550	-.467	-.583	-.459	-.443	-.575	-.465	-.432	-.597
.464	-.616	-.600	-.666	-.509	-.542	-.657	-.597	-.547	-.696
.487	-.683	-.749	-.716	-.674	-.657	-.690	-.679	-.696	-.696
.509	-.915	-.849	-.749	-.839	-.806	-.773	-.893	-.827	-.827
.531	-1.264	-1.147	-.965	-1.235	-1.037	-1.037	-1.256	-1.190	-.976
.554	-1.847			-1.859			-1.903		
.576	-2.652			-2.616			-2.695		
.598	-3.088	-3.490	-4.056	-3.114	-3.412	-3.928	-3.189	-3.541	-4.042
.620	-2.597			-2.612			-2.708		
.643	-1.104	-1.748	-2.253	-1.195	-1.853	-2.175	-1.087	-1.811	-2.241
.665	-.729	-1.026	-1.281	-.730	-1.012	-1.232	-.810	-1.158	-1.229
.687	-.722			-.727			-.870		
.710	-.620			-.669			-.766		
.732	-.562			-.622			-.732		

TABLE 22 (A)  
PRESSURE PROFILE ON FUSELAGE

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



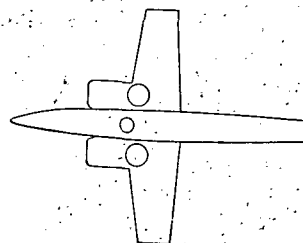
ALPHA = 0.00 DEG EFF. VEL. RATIO = .283				ALPHA = 3.96 DEG EFF. VEL. RATIO = .283				ALPHA = 8.02 DEG EFF. VEL. RATIO = .283			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.086			.138				.207			
.219	.211			.275				.336			
.286	.308			.356				.413			
.331	.385			.438				.491			
.353	.507	.354	.261	.551	.408	.325		.584	.453	.392	
.375	.422			.374				.346			
.397		-1.950	-.257		-.740	-.249			-2.957	.506	
.420	-.346	-1.069	-.313	-.437	-.193	-1.009		-.608	-1.408	-1.862	
.442	-.877	-.558	-1.364	-.298	-.526	.140		-.890	-.618	-1.165	
.464	-1.098	-.884	-2.649	-2.848	-1.940	-2.385		-1.986	-1.397	-1.750	
.487	-1.368	-1.532	-1.784	-1.340	-1.161	-2.003		-1.561	-1.893	-1.998	
.509	-1.534	-1.784	-2.362	-1.534	-1.664	-1.580		-1.692	-1.823	-1.555	
.531	-1.671	-1.631	-2.045	-1.437	-1.050	-1.747		-1.891	-.839	-1.752	
.554	-1.330			-1.404				-1.454			
.576	-1.209			-1.358				-1.388			
.598	-.680	-.981	-1.165	-1.057	-1.077	-1.314		-1.212	-1.173	-1.310	
.620	-.796			-.897				-.984			
.643	-.657	-.776	-1.475	-.729	-.890	-1.635		-.893	-1.001	-1.643	
.665	-.495	-.625	-1.460	-.629	-.798	-1.797		-.782	-.854	-1.774	
.687	-.389			-.465				-.662			
.710	-.248			-.340				-.499			
.732	-.205			-.308				-.429			

ALPHA = 9.82 DEG EFF. VEL. RATIO = .282				ALPHA = 12.01 DEG EFF. VEL. RATIO = .283				ALPHA = 14.06 DEG EFF. VEL. RATIO = .282			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.223			.268				.297			
.219	.358			.390				.426			
.286	.451			.474				.503			
.331	.503			.533				.544			
.353	.594	.469	.382	.608	.499	.415		.629	.495	.425	
.375	.266			.376				.451			
.397		-.096	-.301		-1.024	.442			-2.201	-.509	
.420	-.892	-1.352	-.272	-.470	-.439	-2.437		-.387	-1.384	-.632	
.442	-.667	-.482	-1.749	-.550	-.650	-.681		-.383	-.537	-.703	
.464	-1.044	-.546	-1.743	-.321	-.804	-2.054		-2.170	-1.389	-1.920	
.487	-1.500	-1.626	-1.745	-1.600	-1.496	-1.928		-1.554	-1.354	-2.196	
.509	-1.668	-1.775	-1.555	-1.662	-2.116	-1.830		-1.570	-1.733	-1.799	
.531	-1.815	-2.342	-1.505	-1.903	-1.604	-1.888		-1.995	-1.647	-1.510	
.554	-1.493			-1.539				-1.512			
.576	-1.428			-1.380				-1.417			
.598	-1.153	-1.191	-1.241	-1.247	-1.184	-1.307		-1.198	-1.264	-1.293	
.620	-.997			-1.059				-1.049			
.643	-.863	-.927	-1.716	-.895	-.899	-1.618		-.960	-.916	-1.563	
.665	-.732	-.797	-1.855	-.834	-.785	-1.540		-.818	-.842	-1.535	
.687	-.658			-.702				-.677			
.710	-.562			-.533				-.553			
.732	-.438			-.432				-.448			

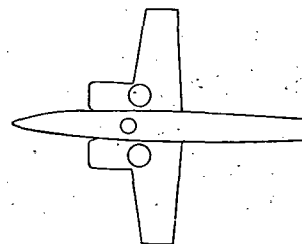


TABLE 22 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 16.00 DEG EFF. VEL. RATIO = .282				ALPHA = 18.00 DEG EFF. VEL. RATIO = .282				ALPHA = 19.98 DEG EFF. VEL. RATIO = .281			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.232			.374				.418			
.219	.455			.491				.527			
.286	.534			.571				.601			
.331	.568			.592				.612			
.353	.649	.525	.442	.657	.553	.464		.673	.581	.467	
.375	.469			.372				.193			
.397		-.897	-.187		-.490	.492			-1.291	.029	
.420	.272	-1.285	-.041	-.505	-1.458	-.835		-.345	.209	.120	
.442	-.507	-.392	-.009	.222	-.107	-.534		-.296	-.353	-1.103	
.464	.024	-1.665	-1.723	-.497	-.538	-1.947		.443	-1.360	-1.935	
.487	-1.400	-1.546	-2.073	-1.184	-1.277	-1.940		-1.543	-1.491	-2.181	
.509	-1.528	-1.690	-1.366	-1.735	-1.849	-1.843		-1.561	-1.566	-1.867	
.531	-.789	-1.406	-1.594	-1.323	-1.540	-1.390		-1.889	-1.661	-1.473	
.554	-1.491			-1.468				-1.409			
.576	-1.346			-1.346				-1.358			
.598	-1.213	-1.294	-1.327	-1.301	-1.276	-1.290		-1.326	-1.309	-1.344	
.620	-1.061			-1.053				-1.049			
.643	-.950	-.909	-1.166	-.952	-.936	-1.075		-.907	-.959	-1.032	
.665	-.835	-.364	-1.325	-.794	-.855	-1.093		-.866	-.883	-1.063	
.687	-.752			-.787				-.754			
.710	-.651			-.683				-.665			
.732	-.491			-.538				-.586			

TABLE 22 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



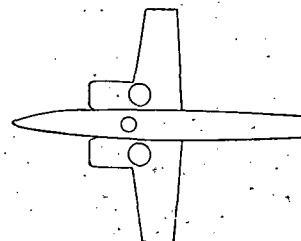
ALPHA = .01 DEG EFF. VEL. RATIO = .188				ALPHA = 3.93 DEG EFF. VEL. RATIO = .188				ALPHA = 8.06 DEG EFF. VEL. RATIO = .187			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.063			.093				.176			
.219	.133			.219				.256			
.286	.193			.254				.304			
.331	.231			.287				.323			
.353	.340	.185	.071	.355	.214	.129		.399	.241	.152	
.375	.244			.201				.759			
.397		-5.016	-1.528		.217	-.077			-5.309	-.891	
.420	-1.487	-.168	-2.459	-1.169	-5.970	-.085		-.760	-3.872	-3.026	
.442	-1.745	-1.798	-4.162	-2.253	-2.097	-3.995		-1.729	-2.538	-5.099	
.464	-5.465	-1.124	-3.697	-2.895	-2.621	-3.843		-2.480	-2.107	-7.833	
.487	-1.839	-2.868	-2.537	-2.408	-1.590	-4.334		-2.657	-2.197	-3.580	
.509	-1.487	-2.639	-1.549	-1.594	-3.009	-2.661		-2.066	-2.579	-2.312	
.531	-.907	-1.659	-3.137	-1.500	-2.338	-2.449		-1.191	-2.648	-2.714	
.554	-1.641			-1.551				-1.445			
.576	-1.545			-1.395				-1.352			
.598	-1.016	-1.421	-2.300	-1.083	-1.304	-2.526		-1.163	-1.365	-2.718	
.620	-.522			-.596				-.801			
.643	-.314	-.301	-1.336	-.282	-.386	-1.399		-.416	-.389	-1.559	
.665	-.180	-.104	-.726	-.166	-.133	-.902		-.239	-.187	-1.021	
.687	-.079			-.103				-.194			
.710	.010			-.041				-.051			
.732	.054			.018				-.013			

ALPHA = 9.99 DEG EFF. VEL. RATIO = .188				ALPHA = 12.01 DEG EFF. VEL. RATIO = .187				ALPHA = 14.01 DEG EFF. VEL. RATIO = .187			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.201			.221				.250			
.219	.293			.326				.350			
.286	.335			.368				.382			
.331	.331			.358				.368			
.353	.398	.242	.147	.425	.248	.140		.421	.241	.128	
.375	-.571			.046				.101			
.397		-.748	-1.477		-6.027	-.984			-4.462	-1.604	
.420	-.891	-5.874	-1.830	-.356	.518	-2.268		-.335	-2.372	.166	
.442	-1.825	-3.018	-7.169	-3.011	-2.818	-6.117		-2.663	-2.347	-4.598	
.464	-5.497	-4.415	-3.846	-7.361	-3.294	-3.360		-5.009	-5.505	-4.618	
.487	-2.776	-4.022	-3.649	-2.375	-1.997	-4.775		-2.610	-3.029	-3.493	
.509	-1.928	-3.166	-2.473	-2.001	-2.900	-3.310		-1.797	-3.325	-4.208	
.531	-1.694	-1.985	-2.420	-1.558	-2.178	-1.423		-1.288	-1.916	-1.205	
.554	-1.452			-1.286				-1.446			
.576	-1.344			-1.262				-1.264			
.598	-1.092	-1.345	-2.762	-1.032	-1.228	-2.887		-.905	-1.054	-2.795	
.620	-.760			-.702				-.691			
.643	-.434	-.512	-1.457	-.467	-.392	-1.426		-.549	-.366	-1.627	
.665	-.189	-.237	-1.165	-.331	-.231	-1.062		-.223	-.258	-1.059	
.687	-.144			-.186				-.133			
.710	-.095			-.048				-.040			
.732	.017			.020				-.008			

TABLE 22 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



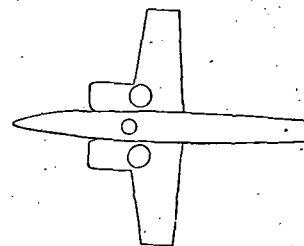
ALPHA = 16.01 DEG  
EFF. VEL. RATIO = .187

ALPHA = 18.01 DEG  
EFF. VEL. RATIO = .187

ALPHA = 20.04 DEG  
EFF. VEL. RATIO = .187

	CP			CP			CP		
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.303			.355			.379		
.219	.382			.417			.483		
.286	.429			.463			.497		
.331	.393			.425			.446		
.353	.441	.264	.146	.465	.304	.178	.477	.312	.182
.375	.215			.369			.185		
.397		-4.398	-1.108		-2.706	-5.516		-3.647	-1.456
.420	-1.477	-6.102	.624	-4.55	-2.378	-2.997	-1.727	.624	-.406
.442	-1.879	-2.403	-7.335	-1.615	-1.697	-5.576	-.430	-2.519	-5.477
.464	-3.615	-4.980	-3.140	-5.043	-3.981	-3.054	-3.130	-2.777	-4.000
.487	-2.829	-2.448	-4.197	-2.812	-3.300	-3.124	-3.557	-1.854	-3.939
.509	-2.382	-3.550	-1.940	-1.988	-3.181	-4.268	-2.191	-3.155	-5.055
.531	-.666	-3.726	-2.440	-1.082	-.320	-2.689	-1.612	-.955	-1.239
.554	-1.242			-1.224			-1.273		
.576	-1.254			-1.237			-1.137		
.598	-1.077	-1.130	-2.869	-1.034	-1.099	-2.505	-.987	-1.188	-2.731
.620	-.696			-.686			-.776		
.643	-.615	-.354	-1.600	-.529	-.423	-1.676	-.428	-.508	-1.680
.665	-.306	-.263	-1.035	-.282	-.316	-1.165	-.338	-.308	-1.271
.687	-.150			-.136			-.279		
.710	-.072			-.072			-.114		
.732	.027			.018			-.026		

TABLE 22 (C)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET

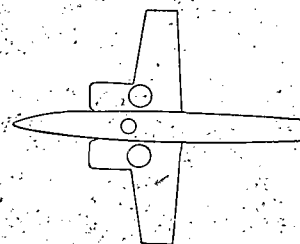


ALPHA = -0.00 DEG EFF. VEL. RATIO = .093				ALPHA = -.01 DEG EFF. VEL. RATIO = .095				ALPHA = 3.93 DEG EFF. VEL. RATIO = .095			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.124			-.084				.001			
.219	-.127			-.123				.001			
.286	-.107			-.117				-.019			
.331	-.178			-.179				-.124			
.353	-.141	-.366	-.400	-.150	-.325	-.434		-.091	-.253	-.316	
.375	.202			-.701				-2.234			
.397		-9.574	-3.794		-9.215	-6.334			-11.521	-5.984	
.420	-1.780	-10.916	.152	-4.676	-1.860	-7.573		-5.437	-1.832	-3.168	
.442	-5.349	-2.631	-7.527	-7.927	-1.876	-6.350		-3.699	-4.987	-4.987	
.464	-3.630	-2.320	-4.498	-3.421	-2.149	-4.628		-4.488	-3.924	-6.789	
.487	-1.551	-1.551	-5.513	-1.715	-2.117	-4.403		-3.055	-4.053	-4.327	
.509	-2.156	-4.252	-1.927	-1.473	-3.437	-3.871		-3.136	-4.327	-5.824	
.531	-2.648	-2.320	-3.761	-3.582	-2.745	-6.946		-3.120	-7.417	-7.578	
.554	-2.140			-2.495				-2.434			
.576	-1.545			-1.781				-1.707			
.598	-.766	-.883	-1.418	-.810	-.764	-1.137		-.838	-.828	-1.323	
.620	-.335			-.328				-.408			
.643	.024	.118	-.114	.059	.056	-.196		.064	.054	-.088	
.665	.209	.139	.041	.274	.181	.132		.140	.068	.078	
.687	.270			.241				.299			
.710	.310			.260				.236			
.732	.323			.227				.259			

ALPHA = 8.04 DEG EFF. VEL. RATIO = .094				ALPHA = 10.04 DEG EFF. VEL. RATIO = .094				ALPHA = 12.00 DEG EFF. VEL. RATIO = .094			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.089			.134				.159			
.219	.100			.144				.193			
.286	.073			.150				.149			
.331	-.073			-.008				-.010			
.353	-.032	-.269	-.296	.009	-.170	-.213		-.000	-.227	-.193	
.375	-.326			.936				.280			
.397		-6.745	-3.684		-6.150	-2.541			-5.072	-2.016	
.420	-3.091	.300	.234	.215	-3.049	.034		-3.668	-1.587	-2.099	
.442	-2.449	-1.676	-2.548	-4.034	-1.016	-.966		-1.075	-2.083	-2.215	
.464	-4.984	.431	-2.137	-.031	-.540	-4.444		-1.009	-2.330	-2.958	
.487	-2.268	.579	-4.441	.789	-.934	-4.969		-.117	1.386	-5.485	
.509	-1.445	.036	-4.408	-1.048	-2.246	-1.458		-2.314	-2.248	-3.635	
.531	-1.857	-1.988	-3.157	-2.426	-2.787	-4.116		-1.785	.395	-3.305	
.554	-1.978			-2.341				-2.037			
.576	-1.508			-1.698				-1.522			
.598	-.772	-.927	-1.393	-.768	-.657	-1.085		-.634	-.959	-1.346	
.620	-.197			-.230				-.166			
.643	.086	.066	-.076	-.001	.188	-.098		-.071	.211	-.237	
.665	.309	.191	.070	.137	.252	.043		.183	.092	.156	
.687	.259			.326				.353			
.710	.313			.390				.234			
.732	.343			.393				.424			

TABLE 22 (C) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 14.00 DEG  
EFF. VEL. RATIO = .094

ALPHA = 16.08 DEG  
EFF. VEL. RATIO = .094

ALPHA = 18.01 DEG  
EFF. VEL. RATIO = .094

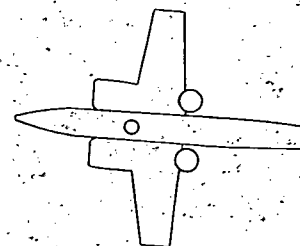
CP

CP

CP

Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.147			.157			.191		
.219	.174			.191			.177		
.286	.124			.157			.136		
.331	-.028			-.018			-.036		
.353	-.035	-.159	-.112	-.002	-.164	-.171	-.009	-.191	-.232
.375	-.820			.246			1.716		
.397		-6.577	-4.281		-3.063	-1.960		-4.440	-2.564
.420	-3.116	-8.627	-4.756	-1.137	-5.351	-4.330	-1.099	.630	-2.284
.442	-2.280	-.131	-3.526	-8.165	-2.273	-4.725	-6.415	-1.955	-2.235
.464	-6.249	-3.936	-4.756	-1.170	-1.186	-3.277	.136	.070	-2.514
.487	-.852	-2.870	-5.429	-1.137	-.627	-3.984	-1.033	-1.099	-4.736
.509	-2.214	-3.772	-4.149	-.758	-1.762	-4.017	-1.593	-3.173	-1.576
.531	-3.657	-4.067	-1.952	-3.754	-4.001	-3.705	-1.329	-5.312	-.638
.554	-1.944			-1.866			-2.157		
.576	-1.556			-1.356			-1.292		
.598	-.651	-.896	-1.533	-.836	-.684	-1.315	-.752	-.941	-1.015
.620	-.270			-.268			-.428		
.643	.019	-.018	-.199	.009	-.001	-.079	-.025	.073	-.073
.665	.195	.168	.178	.002	.273	.151	.089	.238	.113
.687	.245			.232			.235		
.710	.349			.300			.265		
.732	.397			.347			.285		

TABLE 23 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET

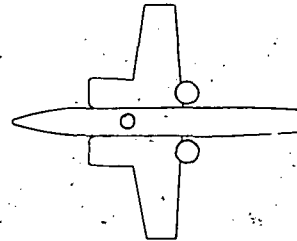


ALPHA = .00 DEG EFF. VEL. RATIO = ∞				ALPHA = 3.91 DEG EFF. VEL. RATIO = ∞				ALPHA = 8.05 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.019			.031				.108			
.219	-.014			.037				.114			
.286	-.116			-.053				.038			
.331	-.178			-.116				-.033			
.353	-.126	-.178	-.273	-.074	-.106	-.181		-.017	-.026	-.098	
.375	-.194			-.158				-.105			
.397		-.096	-.168		-.066	-.117			.002	-.067	
.420	-.170	-.114	-.105	-.117	-.079	-.087		-.066	-.029	-.028	
.442	-.104	-.063	-.083	-.072	-.031	-.056		-.024	.009	-.028	
.464	-.092	-.038	-.055	-.070	-.022	-.039		-.027	.018	-.002	
.487	.005	.014	.007	.020	.012	.025		.050	.048	.054	
.509	.048	.053	.091	.051	.064	.098		.078	.086	.117	
.531	.075	.092	.143	.081	.101	.153		.102	.120	.166	
.554	.092			.092				.106			
.576	.102			.097				.105			
.598	.084	.099	.136	.072	.096	.153		.071	.100	.170	
.620	.041			.020				.018			
.643	-.021	-.089	-.270	-.045	-.108	-.301		-.058	-.126	-.309	
.665	-.062	-.134	-.300	-.092	-.159	-.335		-.119	-.178	-.381	
.687	-.089			-.118				-.139			
.710	-.108			-.118				-.143			
.732	-.105			-.116				-.125			

ALPHA = 9.99 DEG EFF. VEL. RATIO = ∞				ALPHA = 12.00 DEG EFF. VEL. RATIO = ∞				ALPHA = 14.02 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.124			.161				.195			
.219	.146			.179				.203			
.286	.078			.108				.145			
.331	-.001			.032				.055			
.353	.019	.008	-.055	.050	.034	-.017		.075	.065	.020	
.375	-.103			-.085				-.084			
.397		.022	-.050		.071	-.023			.088	-.005	
.420	-.052	-.015	-.011	-.013	.007	.007		-.004	.020	.012	
.442	-.010	.011	-.023	.003	.047	-.010		-.024	.055	.002	
.464	-.010	.034	-.003	-.005	.045	-.001		-.002	.055	.008	
.487	.073	.065	.069	.083	.077	.056		.093	.096	.087	
.509	.099	.107	.137	.101	.115	.140		.113	.128	.140	
.531	.111	.134	.184	.113	.138	.189		.123	.139	.194	
.554	.106			.110				.115			
.576	.105			.104				.108			
.598	.072	.107	.181	.069	.111	.181		.064	.109	.189	
.620	.021			.003				-.001			
.643	-.064	-.128	-.308	-.079	-.134	-.318		-.094	-.153	-.314	
.665	-.120	-.190	-.408	-.144	-.210	-.420		-.159	-.235	-.426	
.687	-.153			-.167				-.201			
.710	-.155			-.169				-.209			
.732	-.131			-.146				-.184			

TABLE 23 (A) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE

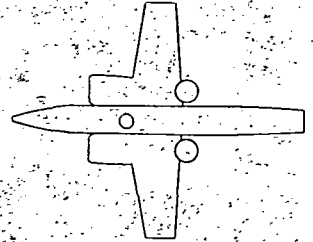
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.99 DEG EFF. VEL. RATIO = ∞				ALPHA = 18.02 DEG EFF. VEL. RATIO = ∞				ALPHA = 20.00 DEG EFF. VEL. RATIO = ∞			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.230			.266				.310			
.219	.251			.278				.316			
.286	.181			.215				.264			
.331	.103			.145				.177			
.353	.110	.085	.052	.146	.121	.080		.175	.150	.126	
.375	-.074			-.065				-.041			
.397		.120	.017		.137	.026			.177	.052	
.420	.011	.044	.048	.027	.071	.071		.049	.104	.099	
.442	.041	.082	.018	.043	.096	.013		.043	.122	.039	
.464	.011	.073	.023	.018	.091	.022		.040	.112	.041	
.487	.111	.115	.073	.125	.125	.073		.146	.138	.094	
.509	.119	.130	.130	.133	.138	.145		.158	.153	.141	
.531	.133	.151	.196	.132	.156	.196		.155	.166	.201	
.554	.122			.127				.136			
.576	.105			.115				.118			
.598	.063	.112	.189	.065	.111	.199		.064	.113	.205	
.620	-.009			-.010				-.013			
.643	-.112	-.164	-.313	-.119	-.170	-.313		-.122	-.164	-.305	
.665	-.191	-.260	-.453	-.208	-.265	-.455		-.208	-.269	-.471	
.687	-.236			-.257				-.264			
.710	-.242			-.262				-.278			
.732	-.230			-.241				-.263			

TABLE 23 (B)  
PRESSURE PROFILE ON FUSELAGE

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -0.02 DEG EFF. VEL. RATIO = .278				ALPHA = 3.96 DEG EFF. VEL. RATIO = .278				ALPHA = 8.02 DEG EFF. VEL. RATIO = .278			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.034			.094				.153			
.219	.080			.131				.206			
.286	.073			.136				.204			
.331	.085			.158				.206			
.353	.288	.027	-.241	.322	.073	-.193		.359	.112	-.153	
.375	.370			.377				.391			
.397		-4.337	-1.489		-4.505	-1.452			-4.109	-1.276	
.420	-1.375	-1.586	-.424	-1.658	-1.529	-2.117		-1.388	-1.866	-3.877	
.442	-1.150	-.832	-.686	-1.432	-.514	-.728		-1.326	-.489	-.722	
.464	-.570	-.289	-.444	-.346	-.322	-.392		-.955	-.310	-.425	
.487	-.426	-.623	-.307	-.291	.065	-.218		-.368	-.222	-.390	
.509	-.190	-.076	-.173	-.180	-.343	-.191		-.219	-.386	-.115	
.531	-.126	-.192	-.096	-.195	-.193	-.151		-.140	-.147	-.011	
.554	-.357			-.384				-.240			
.576	-.426			-.531				-.628			
.598	-.926	-1.215	-2.919	-1.131	-1.350	-2.963		-1.154	-1.361	-3.005	
.620	-1.570			-1.678				-1.692			
.643	-1.641	-2.130	-2.042	-1.695	-2.197	-1.930		-1.762	-2.232	-2.036	
.665	-1.273	-1.473	-1.309	-1.260	-1.377	-1.285		-1.314	-1.479	-1.347	
.687	-.860			-.799				-.860			
.710	-.678			-.650				-.645			
.732	-.533			-.475				-.580			

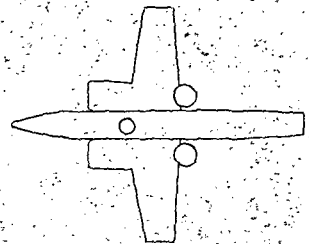
  

ALPHA = 9.98 DEG EFF. VEL. RATIO = .278				ALPHA = 11.96 DEG EFF. VEL. RATIO = .278				ALPHA = 14.00 DEG EFF. VEL. RATIO = .278			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.184			.235				.254			
.219	.240			.268				.307			
.286	.231			.279				.307			
.331	.223			.261				.281			
.353	.383	.123	-.124	.398	.152	-.093		.420	.199	-.097	
.375	.398			.399				.393			
.397		-4.383	-1.284		-3.798	-1.156			-4.137	-1.234	
.420	-1.875	-1.578	-.681	-1.051	-1.509	.081		-1.894	-1.363	-2.016	
.442	-1.161	-.472	-.715	-1.138	-.521	-.706		-.781	-.504	-.515	
.464	-.715	-.319	-.410	-.337	-.282	-.468		-1.401	-.265	-.415	
.487	-.260	-.686	-.238	-.499	.194	-.412		-.416	-.431	-.183	
.509	-.138	-.170	-.189	-.251	-.547	-.293		-.232	-.453	-.167	
.531	-.233	-.196	-.130	-.244	-.311	-.079		-.265	-.187	-.090	
.554	-.441			-.437				-.337			
.576	-.714			-.627				-.720			
.598	-1.283	-1.452	-3.082	-1.225	-1.375	-3.104		-1.206	-1.365	-3.158	
.620	-1.730			-1.803				-1.781			
.643	-1.817	-2.288	-2.156	-1.827	-2.331	-2.135		-1.818	-2.348	-2.143	
.665	-1.416	-1.451	-1.383	-1.359	-1.451	-1.387		-1.425	-1.563	-1.432	
.687	-.929			-.979				-.952			
.710	-.676			-.733				-.759			
.732	-.525			-.632				-.630			



TABLE 23 (B) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



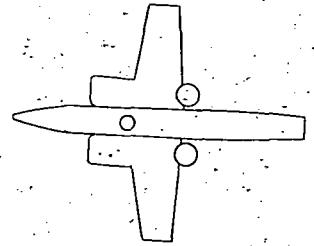
ALPHA = 15.98 DEG  
EFF. VEL. RATIO = .278

ALPHA = 17.96 DEG  
EFF. VEL. RATIO = .273

ALPHA = 20.00 DEG  
EFF. VEL. RATIO = .278

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.299			.327			.377		
.219	.359			.386			.443		
.286	.349			.373			.421		
.331	.308			.345			.376		
.353	.430	.219	-.056	.452	.215	-.037	.460	.225	-.024
.375	.399			.399			.414		
.357		-4.029	-1.076		-3.895	-1.105		-4.182	-1.168
.420	-1.151	-1.257	-2.225	-1.751	-1.212	-2.141	-1.449	-1.268	.179
.442	-.706	-.366	-.567	-1.192	-.239	-.514	-.843	-.378	-.401
.464	-1.305	-.313	-.370	-.769	-.235	-.328	-.237	-.157	-.259
.487	-.395	-.253	-.342	-.270	-.093	-.204	-.387	-.098	-.142
.509	-.138	-.477	-.083	-.091	-.142	-.113	-.089	-.051	-.075
.521	-.295	-.194	-.059	-.204	-.166	-.073	-.186	-.100	.033
.554	-.502			-.438			-.342		
.576	-.800			-.569			-.594		
.598	-1.291	-1.447	-3.204	-1.270	-1.382	-3.121	-1.182	-1.321	-3.167
.620	-1.783			-1.757			-1.751		
.643	-1.924	-2.419	-2.298	-1.944	-2.528	-2.327	-1.978	-2.517	-2.539
.665	-1.492	-1.644	-1.509	-1.590	-1.758	-1.644	-1.654	-1.914	-1.636
.687	-1.059			-1.136			-1.075		
.710	-.822			-.855			-.886		
.732	-.730			-.744			-.744		

TABLE 23 (C)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -0.04 DEG  
EFF. VEL. RATIO = .186

ALPHA = 3.97 DEG  
EFF. VEL. RATIO = .187

ALPHA = 7.98 DEG  
EFF. VEL. RATIO = .186

CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.004			.050				.108			
.219	.014			.069				.138			
.286	-.028			.016				.077			
.331	-.055			-.032				.034			
.353	.086	-.161	-.454	.119	-.150	-.365		.139	-.078	-.341	
.375	.162			.172				.175			
.397		-5.095	-1.386		-5.059	-1.561			-5.059	-1.707	
.420	-.567	-1.803	-4.428	-.199	-1.842	-1.972		-.212	-1.670	-.413	
.442	-1.742	-.788	-.845	-2.307	-.660	-.957		-1.732	-.534	-.958	
.464	-.169	-.378	-.735	-2.405	-.391	-.688		-.702	-.357	-.641	
.487	-.305	-.264	-.456	-.386	-.696	-.476		-.464	-.373	-.492	
.509	-.354	-.333	-.423	-.350	-.272	-.333		-.414	-.352	-.381	
.531	-.497	-.432	-.337	-.586	-.391	-.415		-.492	-.422	-.348	
.554	-.799			-.861				-.859			
.576	-1.409			-1.473				-1.457			
.598	-2.231	-2.981	-4.222	-2.268	-3.041	-4.272		-2.257	-3.066	-4.374	
.620	-2.339			-2.445				-2.465			
.643	-1.595	-1.506	-2.007	-1.554	-1.615	-2.088		-1.584	-1.571	-2.193	
.665	-1.034	-1.219	-1.152	-1.037	-1.107	-1.304		-1.059	-1.293	-1.291	
.687	-.909			-.936				-.850			
.710	-.720			-.719				-.661			
.732	-.614			-.551				-.568			

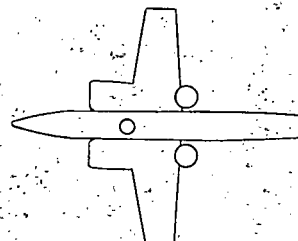
ALPHA = 9.98 DEG  
EFF. VEL. RATIO = .186

ALPHA = 11.99 DEG  
EFF. VEL. RATIO = .186

ALPHA = 13.97 DEG  
EFF. VEL. RATIO = .186

CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.140			.196				.218			
.219	.159			.198				.248			
.286	.106			.141				.184			
.331	.057			.085				.102			
.353	.164	-.086	-.342	.184	-.069	-.300		.208	-.040	-.232	
.375	.199			.191				.199			
.397		-5.062	-1.573		-4.708	-1.447			-4.928	-1.472	
.420	-1.516	-1.867	-3.209	-2.680	-1.587	-.583		-1.059	-1.688	-1.108	
.442	-1.082	-.436	-.894	-1.832	-.431	-.841		-1.513	-.638	-.785	
.464	-.628	-.407	-.587	-.124	-.259	-.567		-.900	-.266	-.507	
.487	-.391	-1.111	-.411	-.411	-.104	-.323		-.344	-.119	-.377	
.509	-.374	-.362	-.341	-.370	-.370	-.366		-.369	-.303	-.275	
.531	-.558	-.509	-.370	-.485	-.423	-.354		-.536	-.381	-.315	
.554	-.868			-.824				-.837			
.576	-1.446			-1.475				-1.461			
.598	-2.290	-3.095	-4.485	-2.278	-3.113	-4.518		-2.293	-3.105	-4.579	
.620	-2.452			-2.532				-2.480			
.643	-1.605	-1.607	-2.266	-1.602	-1.672	-2.263		-1.559	-1.720	-2.185	
.665	-1.097	-1.249	-1.430	-1.059	-1.200	-1.433		-1.042	-1.098	-1.332	
.687	-.853			-.827				-.791			
.710	-.721			-.771				-.668			
.732	-.588			-.503				-.525			

TABLE 23 (C) - CONCLUDED  
 PRESSURE PROFILE ON FUSELAGE  
 REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



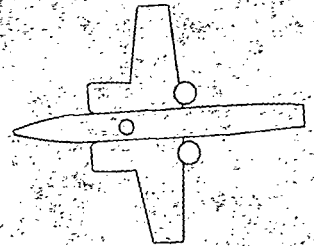
ALPHA = 15.98 DEG  
 EFF. VEL. RATIO = .186

ALPHA = 17.98 DEG  
 EFF. VEL. RATIO = .186

ALPHA = 19.97 DEG  
 EFF. VEL. RATIO = .185

X/L	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.272			.310			.347		
.219	.283			.319			.358		
.286	.233			.265			.324		
.321	.152			.170			.198		
.353	.237	-.009	-.246	.255	-.017	-.217	.283	.027	-.181
.375	.215			.225			.216		
.397		-5.105	-1.405		-4.970	-1.403		-4.496	-1.394
.420	-1.217	-1.656	-1.258	-1.145	-1.657	-1.190	-1.140	-1.603	-1.058
.442	-1.635	-.359	-.798	-1.465	-.349	-.780	-1.902	-.378	-.726
.464	.215	-.306	-.507	-.349	-.210	-.522	-.316	-.263	-.550
.487	-.265	.227	-.388	-.288	-1.588	-.403	-.292	-1.587	-.357
.509	-.331	-.257	-.318	-.399	-.251	-.333	-.378	-.280	-.353
.531	-.470	-.417	-.351	-.485	-.399	-.321	-.431	-.398	-.312
.554	-.795			-.810			-.787		
.576	-1.451			-1.484			-1.523		
.598	-2.305	-3.132	-4.536	-2.319	-3.159	-4.646	-2.443	-3.244	-4.814
.620	-2.476			-2.559			-2.560		
.643	-1.570	-1.596	-2.266	-1.594	-1.592	-2.234	-1.514	-1.735	-2.321
.665	-.970	-1.187	-1.328	-1.033	-1.161	-1.432	-1.067	-1.204	-1.443
.687	-.805			-.887			-.836		
.710	-.694			-.729			-.699		
.732	-.605			-.602			-.627		

TABLE 23 (D)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET

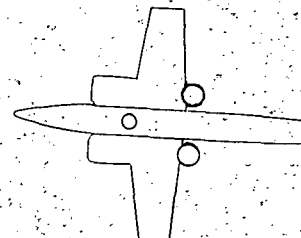


ALPHA = -0.02 DEG EFF. VEL. RATIO = .094				ALPHA = 3.59 DEG EFF. VEL. RATIO = .094				ALPHA = 7.99 DEG EFF. VEL. RATIO = .092			
CP				CP				CP			
Y/YMAX =				Y/YMAX =				Y/YMAX =			
0.0 0.5 0.8				0.0 0.5 0.8				0.0 0.5 0.8			
X/L				X/L				X/L			
.130	-.164			.130	-.099			.130	-.046		
.219	-.263			.219	-.122			.219	-.063		
.286	-.329			.286	-.221			.286	-.145		
.331	-.415			.331	-.323			.331	-.295		
.353	-.346			.353	-.271			.353	-.240		
.375				.375	-.363			.375	-.261		
.397				.397				.397			
.420				.420				.420			
.442				.442				.442			
.464				.464				.464			
.487				.487				.487			
.509				.509				.509			
.531				.531				.531			
.554				.554				.554			
.576				.576				.576			
.598				.598				.598			
.620				.620				.620			
.643				.643				.643			
.665				.665				.665			
.687				.687				.687			
.710				.710				.710			
.732				.732				.732			

ALPHA = 10.01 DEG EFF. VEL. RATIO = .093				ALPHA = 11.98 DEG EFF. VEL. RATIO = .092				ALPHA = 13.99 DEG EFF. VEL. RATIO = .093			
CP				CP				CP			
Y/YMAX =				Y/YMAX =				Y/YMAX =			
0.0 0.5 0.8				0.0 0.5 0.8				0.0 0.5 0.8			
X/L				X/L				X/L			
.130	.000			.130	.022			.130	.093		
.219	-.027			.219	-.049			.219	.043		
.286	-.128			.286	-.072			.286	-.018		
.331	-.256			.331	-.238			.331	-.163		
.353	-.202			.353	-.187			.353	-.139		
.375	-.262			.375	-.277			.375	-.193		
.397				.397				.397			
.420				.420				.420			
.442				.442				.442			
.464				.464				.464			
.487				.487				.487			
.509				.509				.509			
.531				.531				.531			
.554				.554				.554			
.576				.576				.576			
.598				.598				.598			
.620				.620				.620			
.643				.643				.643			
.665				.665				.665			
.687				.687				.687			
.710				.710				.710			
.732				.732				.732			

TABLE 23 (D) - CONCLUDED  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 15.97 DEG EFF. VEL. RATIO = .092				ALPHA = 17.97 DEG EFF. VEL. RATIO = .092				ALPHA = 19.99 DEG EFF. VEL. RATIO = .092			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.149			.200				.260			
.219	.116			.153				.200			
.286	.072			.092				.140			
.331	-.117			-.091				-.031			
.353	-.087	-.279	-.407	-.105	-.355	-.331		-.044	-.338	-.362	
.375	-.234			-.153				-.141			
.397		-4.171	-1.153		-4.852	-1.439			-3.562	-1.445	
.420	-.381	-1.153	.455	-2.808	-1.159	.243		-.434	-.597	-3.090	
.442	-2.826	-.447	-.266	.358	.012	-.894		-.451	-.272	-.858	
.464	.225	-.299	-.578	-.367	-.120	-.383		-1.461	-.109	-.597	
.487	-.234	-.168	-.332	-.268	-.565	-.449		-.386	.135	-.288	
.509	-.512	-.414	-.545	-.449	-.285	-.416		-.304	-.239	-.369	
.531	-.726	-.594	-.726	-.631	-.614	-.548		-.614	-.548	-.532	
.554	-1.167			-1.055				-1.033			
.576	-1.679			-1.519				-1.395			
.598	-1.786	-2.036	-2.531	-1.600	-1.857	-2.372		-1.592	-1.836	-2.381	
.620	-1.258			-1.140				-.936			
.643	-.665	-.834	-1.359	-.629	-.788	-.930		-.642	-.559	-.970	
.665	-.689	-.722	-.803	-.490	-.581	-.913		-.472	-.639	-.873	
.687	-.433			-.459				-.298			
.710	-.352			-.290				-.495			
.732	-.180			-.233				-.238			

TABLE 24 (A)

## PRESSURE PROFILE ON NACELLE

FORWARD NOZZLES DEFLECTED 90 DEGREES

ALPHA = .02 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

X/C  
-.620  
-.684  
-.716  
-.684  
-.593  
-.501  
-.380  
-.268  
-.148  
-.029  
.060  
.250  
.400  
.550  
.700  
.850  
.950

.690 .690  
.895 .912  
-.264 -.296  
-.957 -.998  
-.445  
-.336  
-.233 -.156  
-.184 -.031  
-.173 .093  
-.241  
-.236  
-.312  
-.413  
-.323  
-.278  
-.260  
-.299

ALPHA = 4.04 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.793 .640  
.990 .797  
-1.041 .386  
-1.126 -.499  
-.583  
-.443  
-.308 -.085  
-.229 .023  
-.231 .128  
-.323  
-.318  
-.405  
-.455  
-.366  
-.290  
-.254  
-.250

ALPHA = 8.03 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.861 .600  
1.013 .653  
-2.032 .763  
-1.594 -.151  
-.763  
-.555  
-.389 -.030  
-.294 .045  
-.309 .146  
-.412  
-.429  
-.490  
-.492  
-.382  
-.280  
-.201  
-.170

ALPHA = 10.04 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

X/C  
-.620  
-.684  
-.716  
-.684  
-.593  
-.501  
-.380  
-.268  
-.148  
-.029  
.060  
.250  
.400  
.550  
.700  
.850  
.950

.910 .537  
1.008 .553  
-2.676 .865  
-1.907 .026  
-.890  
-.617  
-.424 -.002  
-.335 .069  
-.353 .166  
-.473  
-.488  
-.535  
-.518  
-.392  
-.277  
-.194  
-.159

ALPHA = 12.02 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.920 .495  
1.004 .449  
-1.537 .933  
-1.405 .107  
-1.536  
-.816  
-.417 .034  
-.313 .084  
-.301 .166  
-.371  
-.409  
-.624  
-.586  
-.539  
-.421  
-.254  
-.239

ALPHA = 14.03 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.922 .496  
.991 .374  
-1.425 .973  
-1.273 .246  
-1.422  
-1.107  
-.500 .033  
-.329 .090  
-.273 .163  
-.314  
-.429  
-.536  
-.614  
-.668  
-.661  
-.512  
-.416

ALPHA = 16.02 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

X/C  
-.620  
-.684  
-.716  
-.684  
-.593  
-.501  
-.380  
-.268  
-.148  
-.029  
.060  
.250  
.400  
.550  
.700  
.850  
.950

.933 .506  
.978 .297  
-1.865 .988  
-1.108 .337  
-1.294  
-.927  
-.550 .052  
-.388 .102  
-.328 .170  
-.316  
-.471  
-.535  
-.602  
-.660  
-.721  
-.658  
-.485

ALPHA = 18.02 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.957 .489  
.963 .208  
-1.956 .983  
-1.081 .437  
-1.227  
-.942  
-.561 .080  
-.412 .120  
-.352 .180  
-.370  
-.526  
-.556  
-.639  
-.699  
-.716  
-.673  
-.565

ALPHA = 20.04 DEG  
EFF. VEL. RATIO =  $\infty$ 

CP

UPPER LOWER

.971 .478  
.947 .081  
-2.007 .969  
-1.107 .525  
-1.171  
-1.031  
-.600 .106  
-.447 .130  
-.458 .167  
-.436  
-.574  
-.577  
-.641  
-.710  
-.750  
-.685  
-.595

TABLE 24 (B)  
PRESSURE PROFILE ON NACELLE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = .01 DEG  
EFF. VEL. RATIO = .302

ALPHA = 4.01 DEG  
EFF. VEL. RATIO = .302

ALPHA = 8.03 DEG  
EFF. VEL. RATIO = .302

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-2.463	-2.952	-2.142	-3.260	-1.869	-3.501
-.684	-1.196	-2.344	-.752	-3.174	-.225	-3.985
-.716	.899	.992	.570	.788	.032	.242
-.684	-.399	.246	-.857	.516	-1.342	.735
-.593	-.343		-.522		-.743	
-.501	-.305		-.427		-.553	
-.380	-.232	.189	-.322	.226	-.442	.256
-.268	-.191	.264	-.267	.278	-.370	.295
-.148	-.197	.364	-.297	.348	-.392	.362
-.029	-.298		-.426		-.528	
.060	-.276		-.401		-.539	
.250	-.400		-.491		-.608	
.400	-.492		-.580		-.660	
.550	-.431		-.485		-.553	
.700	-.398		-.441		-.464	
.850	-.431		-.437		-.450	
.950	-.629		-.576		-.528	

ALPHA = 10.02 DEG  
EFF. VEL. RATIO = .302

ALPHA = 12.02 DEG  
EFF. VEL. RATIO = .301

ALPHA = 14.01 DEG  
EFF. VEL. RATIO = .301

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-1.762	-3.642	-1.680	-3.773	-1.565	-3.833
-.684	-.101	-4.426	-.058	-4.846	.202	-5.236
-.716	-.447	-.073	-.593	-.413	-.937	-.985
-.684	-1.628	.816	-1.641	.864	-1.624	.911
-.593	-.841		-.902		-.868	
-.501	-.626		-.715		-.639	
-.380	-.491	.302	-.554	.314	-.489	.344
-.268	-.421	.308	-.472	.312	-.440	.338
-.148	-.471	.363	-.501	.354	-.418	.383
-.029	-.605		-.671		-.548	
.060	-.616		-.661		-.536	
.250	-.683		-.714		-.915	
.400	-.708		-.737		-.972	
.550	-.542		-.601		-.892	
.700	-.492		-.526		-.789	
.850	-.456		-.474		-.672	
.950	-.526		-.509		-.608	

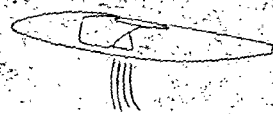
ALPHA = 16.04 DEG  
EFF. VEL. RATIO = .302

ALPHA = 18.03 DEG  
EFF. VEL. RATIO = .302

ALPHA = 20.02 DEG  
EFF. VEL. RATIO = .302

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-1.480	-3.932	-1.421	-4.070	-1.327	-4.162
-.684	-.327	-5.585	-.425	-5.971	.495	-6.192
-.716	-1.190	-1.265	-1.451	-1.976	-1.765	-2.554
-.684	-1.719	.917	-1.825	.953	-1.915	.941
-.593	-.863		-.861		-.866	
-.501	-.637		-.633		-.632	
-.380	-.523	.361	-.521	.372	-.558	.394
-.268	-.433	.352	-.455	.365	-.514	.375
-.148	-.316	.392	-.408	.405	-.421	.394
-.029	-.440		-.435		-.464	
.060	-.550		-.650		-.658	
.250	-.780		-.767		-.707	
.400	-.934		-.884		-.867	
.550	-.958		-.912		-.905	
.700	-.936		-.974		-.971	
.850	-.815		-.974		-.967	
.950	-.742		-.867		-.906	

TABLE 24 (C)  
PRESSURE PROFILE ON NACELLE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .203

ALPHA = 4.00 DEG  
EFF. VEL. RATIO = .202

ALPHA = 7.98 DEG  
EFF. VEL. RATIO = .201

X/C	UPPER	LOWER	CP	UPPER	LOWER	CP	UPPER	LOWER	CP
.020	-6.695	-7.494		-6.574	-3.012		-6.192	-8.454	
.044	-7.599	-6.487		-4.413	-7.648		-3.435	-8.829	
.068	.930	.552		.585	.160		.944	-1.061	
.093	.005	.390		.422	.621		.716	.890	
.117	-.282			.418			.586		
.141	-.232			.362			.493		
.165	-.233	.020		.308	.035		.361	.092	
.189	-.196	.080		.262	.058		.314	.082	
.213	-.217	.176		.276	.149		.347	.152	
.237	-.301			.352			.479		
.261	-.243			.350			.461		
.285	-.354			.453			.532		
.309	-.465			.525			.576		
.333	-.413			.449			.479		
.357	-.385			.402			.408		
.381	-.445			.428			.408		
.405	-.697			.554			.547		

ALPHA = 10.02 DEG  
EFF. VEL. RATIO = .202

ALPHA = 12.00 DEG  
EFF. VEL. RATIO = .202

ALPHA = 13.98 DEG  
EFF. VEL. RATIO = .202

X/C	UPPER	LOWER	CP	UPPER	LOWER	CP	UPPER	LOWER	CP
.020	-5.895	-8.653		-5.731	-8.837		-5.588	-9.012	
.044	-3.071	-9.454		-2.707	-10.214		-2.298	-10.888	
.068	.850	-1.454		.684	-2.230		.478	-2.915	
.093	-.943	.879		-1.130	.924		-1.358	.956	
.117	-.678			.730			-.833		
.141	-.532	.121		.629			-.667		
.165	-.418	.096		.480	.144		-.521	.149	
.189	-.362	.144		.403	.100		-.460	.093	
.213	-.380			.436	.121		-.479	.112	
.237	-.506			.562			-.632		
.261	-.596			.557			-.607		
.285	-.588			.593			-.643		
.309	-.607			.623			-.654		
.333	-.495			.502			-.514		
.357	-.405			.389			-.403		
.381	-.406			.376			-.352		
.405	-.507			.461			-.424		

ALPHA = 16.01 DEG  
EFF. VEL. RATIO = .202

ALPHA = 17.99 DEG  
EFF. VEL. RATIO = .202

ALPHA = 20.02 DEG  
EFF. VEL. RATIO = .202

X/C	UPPER	LOWER	CP	UPPER	LOWER	CP	UPPER	LOWER	CP
.020	-5.433	-9.147		-5.188	-9.204		-5.123	-9.456	
.044	-2.091	-11.344		-1.852	-11.908		-1.661	-12.531	
.068	.336	-3.633		.133	-4.250		.032	-5.080	
.093	-1.502	.948		-1.644	.950		-1.745	.930	
.117	-.878			-.887			-.852		
.141	-.712	.183		-.655	.212		-.662	.219	
.165	-.578	.121		-.585	.115		-.500	.132	
.189	-.503	.095		-.494	.091		-.469	.095	
.213	-.513			-.486			-.420		
.237	-.646			-.605			-.480		
.261	-.646			-.635			-.571		
.285	-.653			-.763			-.882		
.309	-.510			-.759			-.874		
.333	-.404			-.586			-.918		
.357	-.352			-.515			-.877		
.381	-.410			-.414			-.678		
.405				-.436			-.583		



TABLE 24 (d)  
PRESSURE PROFILE ON NACELLE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -0.01 DEG  
EFF. VEL. RATIO = .100

ALPHA = 4.02 DEG  
EFF. VEL. RATIO = .100

ALPHA = 8.00 DEG  
EFF. VEL. RATIO = .100

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-31.365	-32.025	-30.591	-32.804	-30.219	-33.699
-.684	-27.407	-29.336	-25.778	-31.093	-24.301	-33.300
-.716	-4.313	-4.901	-3.118	-6.723	-1.890	-8.529
-.684	.943	.964	.305	1.066	.712	1.126
-.593	.269		.169		.099	
-.501	.064		.027		-.043	
-.380	.042	-.085	-.001	-.057	-.036	-.015
-.268	.035	-.085	.013	-.079	-.022	-.036
-.148	.007	.007	-.036	.013	-.036	-.015
-.029	-.050		-.093		-.129	
.060	-.043		-.079		-.122	
.250	-.181		-.209		-.224	
.400	-.297		-.282		-.298	
.550	-.280		-.235		-.229	
.700	-.253		-.225		-.188	
.850	-.369		-.276		-.243	
.950	-.679		-.544		-.480	

ALPHA = 10.01 DEG  
EFF. VEL. RATIO = .100

ALPHA = 11.99 DEG  
EFF. VEL. RATIO = .100

ALPHA = 14.02 DEG  
EFF. VEL. RATIO = .100

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-29.712	-34.190	-29.166	-34.145	-28.628	-34.441
-.684	-23.740	-34.476	-22.796	-35.131	-21.562	-35.864
-.716	-1.404	-9.483	-1.078	-10.398	-.391	-11.635
-.684	.589	1.161	.554	1.178	.416	1.230
-.593	-.025		-.023		-.101	
-.501	-.097		-.106		-.143	
-.380	-.054	.039	-.095	.093	-.115	.098
-.268	-.032	-.025	-.014	-.014	-.065	.041
-.148	-.089	.011	-.049	.022	-.087	.027
-.029	-.154		-.149		-.179	
.060	-.161		-.170		-.193	
.250	-.242		-.222		-.237	
.400	-.286		-.259		-.272	
.550	-.214		-.190		-.190	
.700	-.166		-.143		-.122	
.850	-.183		-.160		-.146	
.950	-.451		-.340		-.337	

ALPHA = 15.98 DEG  
EFF. VEL. RATIO = .100

ALPHA = 18.00 DEG  
EFF. VEL. RATIO = .101

ALPHA = 19.99 DEG  
EFF. VEL. RATIO = .101

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-28.359	-34.771	-27.848	-34.886	-27.390	-35.028
-.684	-21.082	-37.474	-19.881	-38.240	-19.073	-39.127
-.716	-.040	-12.854	.150	-13.898	.477	-15.240
-.684	.346	1.197	.179	1.163	.092	1.127
-.593	-.151		-.236		-.293	
-.501	-.179		-.229		-.272	
-.380	-.130	.140	-.159	.179	-.195	.197
-.268	-.073	.041	-.110	.059	-.125	.064
-.148	-.087	.041	-.138	.045	-.146	.036
-.029	-.222		-.264		-.279	
.060	-.222		-.250		-.244	
.250	-.252		-.266		-.273	
.400	-.276		-.292		-.276	
.550	-.143		-.174		-.161	
.700	-.092		-.089		-.064	
.850	-.068		-.052		-.050	
.950	-.286		-.258		-.205	

TABLE 25.(A)  
PRESSURE PROFILE ON NACELLE  
RFAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = -0.00 DEG EFF. VEL. RATIO = ∞			ALPHA = 3.99 DEG EFF. VEL. RATIO = ∞			ALPHA = 8.05 DEG EFF. VEL. RATIO = ∞		
CP			CP			CP		
X/C	UPPER	LOWER	UPPER	LOWER		UPPER	LOWER	
-.620	.570	.579	.666	.506		.753	.427	
-.584	.622	.355	.948	.699		.998	.456	
-.716	.081	-.141	-.671	.309		-1.636	.760	
-.984	-.820	-1.155	-1.037	-.620		-1.518	-.170	
-.993	-.366		-.555			-.744		
-.901	-.309		-.414			-.542		
-.960	-.234	-.319	-.798	-.256		-.387	-.180	
-.268	-.137	-.258	-.224	-.207		-.297	-.147	
-.148	-.157	-.264	-.226	-.225		-.303	-.175	
-.929	-.195		-.283			-.413		
.030	-.197		-.313			-.440		
.250	-.231		-.378			-.485		
.400	-.343		-.430			-.492		
.550	-.275		-.325			-.368		
.700	-.204		-.233			-.258		
.850	-.146		-.150			-.163		
.950	-.107		-.088			-.100		

ALPHA = 10.00 DEG EFF. VEL. RATIO = ∞			ALPHA = 11.99 DEG EFF. VEL. RATIO = ∞			ALPHA = 14.94 DEG EFF. VEL. RATIO = ∞		
CP			CP			CP		
X/C	UPPER	LOWER	UPPER	LOWER		UPPER	LOWER	
-.620	.795	.354	.829	.318		.833	.314	
-.684	1.000	.520	.898	.251		.997	.177	
-.716	-2.210	.373	-1.473	.943		-1.407	.970	
-.664	-1.822	-.028	-1.448	.087		-1.293	.237	
-.993	-.827		-1.415			-1.480		
-.901	-.596		-.714			-1.016		
-.960	-.622	-.137	-.385	-.108		-.435	-.089	
-.268	-.340		-.304	-.095		-.305	-.084	
-.143	-.354	-.154	-.280	-.138		-.248	-.129	
-.929	-.448		-.356			-.278		
.060	-.491		-.459			-.400		
.250	-.537		-.655			-.551		
.400	-.515		-.683			-.633		
.550	-.365		-.553			-.654		
.700	-.269		-.471			-.678		
.850	-.165		-.273			-.673		
.950	-.109		-.184			-.550		

ALPHA = 16.01 DEG EFF. VEL. RATIO = ∞			ALPHA = 18.02 DEG EFF. VEL. RATIO = ∞			ALPHA = 20.02 DEG EFF. VEL. RATIO = ∞		
CP			CP			CP		
X/C	UPPER	LOWER	UPPER	LOWER		UPPER	LOWER	
-.620	.869	.314	.879	.291		.896	.272	
-.684	.994	.038	.972	-.066		.959	-.195	
-.716	-1.339	.982	-1.574	.962		-1.986	.917	
-.664	-1.115	.732	-1.155	.480		-1.119	.583	
-.993	-1.358		-1.297			-1.208		
-.901	-.953		-.893			-1.015		
-.960	-.485	-.049	-.513	-.017		-.550	.023	
-.268	-.389	-.036	-.399	-.041		-.440	-.002	
-.148	-.547	-.104	-.335	-.088		-.446	-.056	
-.929	-.340		-.404			-.536		
.060	-.522		-.576			-.612		
.250	-.555		-.591			-.586		
.400	-.624		-.642			-.665		
.550	-.676		-.682			-.722		
.700	-.701		-.725			-.753		
.850	-.723		-.753			-.731		
.950	-.670		-.576			-.745		

TABLE 25 (B)  
PRESSURE PROFILE ON NACELLE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .294

ALPHA = 4.02 DEG  
EFF. VEL. RATIO = .294

ALPHA = 8.04 DEG  
EFF. VEL. RATIO = .294

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-.3114	-.3148	-.2881	-.3616	-.2595	-.3983
-.684	-.1973	-.2218	-.1643	-.3026	-.872	-.3953
-.716	-.988	-.994	-.793	-.925	-.430	-.586
-.694	-.223	-.039	-.614	-.232	-.1072	-.492
-.593	-.272		-.436		-.595	
-.501	-.239		-.375		-.511	
-.389	-.212	-.101	-.293	-.094	-.386	-.031
-.268	-.155	-.128	-.233	-.074	-.330	-.041
-.143	-.171	-.179	-.266	-.126	-.376	-.090
-.029	-.261		-.364		-.497	
.000	-.283		-.403		-.560	
.250	-.333		-.502		-.633	
.400	-.483		-.581		-.659	
.550	-.427		-.491		-.558	
.700	-.364		-.426		-.469	
.850	-.373		-.388		-.426	
.950	-.331		-.401		-.431	

ALPHA = 10.02 DEG  
EFF. VEL. RATIO = .294

ALPHA = 12.02 DEG  
EFF. VEL. RATIO = .294

ALPHA = 14.01 DEG  
EFF. VEL. RATIO = .294

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-.244	-.4116	-.2293	-.4224	-.2196	-.4334
-.684	-.584	-.4242	-.472	-.4565	-.279	-.4833
-.716	-.233	-.344	-.010	-.120	-.279	-.273
-.694	-.1255	-.330	-.1530	-.710	-.1532	-.786
-.593	-.684		-.635		-.723	
-.501	-.361		-.541		-.543	
-.389	-.426	-.101	-.385	-.044	-.381	-.041
-.268	-.364	-.128	-.298	-.024	-.278	-.052
-.143	-.415	-.179	-.291	-.039	-.270	-.022
-.029	-.576		-.419		-.347	
.000	-.625		-.602		-.569	
.250	-.581		-.543		-.805	
.400	-.714		-.908		-.879	
.550	-.576		-.672		-.901	
.700	-.491		-.300		-.921	
.850	-.449		-.722		-.884	
.950	-.442		-.624		-.721	

ALPHA = 16.01 DEG  
EFF. VEL. RATIO = .294

ALPHA = 18.01 DEG  
EFF. VEL. RATIO = .293

ALPHA = 20.00 DEG  
EFF. VEL. RATIO = .293

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-.620	-.2115	-.4445	-.1991	-.4531	-.1914	-.4656
-.684	-.153	-.5212	-.028	-.5551	-.132	-.6036
-.716	-.557	-.3542	-.822	-.579	-.1218	-.1620
-.694	-.1441	-.239	-.1526	-.483	-.1655	-.927
-.593	-.746		-.769		-.809	
-.501	-.558		-.579		-.582	
-.389	-.415	-.127	-.442	-.142	-.568	-.234
-.268	-.315	-.074	-.346	-.091	-.390	-.133
-.143	-.272	-.006	-.253	-.010	-.323	-.041
-.029	-.363		-.349		-.473	
.000	-.674		-.762		-.795	
.250	-.775		-.797		-.802	
.400	-.634		-.346		-.846	
.550	-.876		-.884		-.899	
.700	-.927		-.946		-.922	
.850	-.953		-.968		-.976	
.950	-.941		-.982		-.1003	

TABLE 25 (C)  
PRESSURE PROFILE ON NACELLE  
HEAD NOZZLES DEFLECTED 90 DEGREES

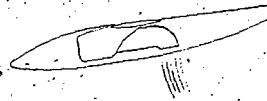


X/C	ALPHA = 0.01 DEG EFF. VEL. RATIO = .196		ALPHA = 4.00 DEG EFF. VEL. RATIO = .196		ALPHA = 8.02 DEG EFF. VEL. RATIO = .196	
	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.020	-8.321	-8.037	-7.875	-9.044	-7.472	-9.607
-0.084	-6.152	-7.129	-5.388	-8.226	-4.528	-9.209
-0.160	-7.34	-5.13	-.921	-.065	-.900	-.772
-0.234	-1.60	-.312	-.203	-.506	-.526	-.709
-0.293	-.220		-.374		-.532	
-0.3014	-.255		-.367		-.441	
-0.360	-.195	-.150	-.308	-.132	-.402	-.051
-0.266	-.157	-.140	-.285	-.130	-.334	-.093
-0.148	-.183	-.215	-.306	-.215	-.412	-.185
-0.029	-.231		-.402		-.542	
0.050	-.280		-.463		-.588	
0.250	-.432		-.530		-.685	
0.400	-.554		-.640		-.753	
0.550	-.443		-.561		-.652	
0.700	-.454		-.507		-.581	
0.850	-.436		-.515		-.567	
0.950	-.544		-.571		-.616	

X/C	ALPHA = 10.00 DEG EFF. VEL. RATIO = .195		ALPHA = 12.02 DEG EFF. VEL. RATIO = .196		ALPHA = 14.00 DEG EFF. VEL. RATIO = .196	
	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.020	-7.299	-9.845	-7.139	-10.052	-6.941	-10.251
-0.084	-4.206	-9.907	-3.793	-10.393	-3.566	-10.835
-0.160	-.903	-1.298	-.842	-1.830	-.777	-2.479
-0.234	-.755	-.778	-.893	-.828	-1.031	-.873
-0.293	-.635		-.564		-.685	
-0.3014	-.581		-.506		-.550	
-0.360	-.429	-.013	-.438	-.002	-.426	-.035
-0.266	-.392	-.063	-.383	-.050	-.335	-.030
-0.148	-.447	-.159	-.397	-.159	-.359	-.132
-0.029	-.608		-.526		-.404	
0.050	-.657		-.770		-.583	
0.250	-.750		-1.006		-1.067	
0.400	-.798		-.855		-1.069	
0.550	-.682		-.785		-1.057	
0.700	-.601		-.726		-.963	
0.850	-.582		-.641		-.878	
0.950	-.635		-.674		-.762	

X/C	ALPHA = 15.93 DEG EFF. VEL. RATIO = .197		ALPHA = 18.03 DEG EFF. VEL. RATIO = .197		ALPHA = 19.99 DEG EFF. VEL. RATIO = .196	
	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.020	-6.760	-10.354	-6.539	-10.551	-6.472	-10.746
-0.084	-3.241	-11.430	-2.959	-11.848	-2.693	-12.639
-0.160	-.649	-3.159	-.481	-3.891	-.312	-4.632
-0.234	-1.155	-.391	-1.232	-.909	-1.383	-.897
-0.293	-.643		-.739		-.756	
-0.3014	-.567		-.583		-.604	
-0.360	-.440	-.072	-.449	-.111	-.482	-.146
-0.266	-.345	-.003	-.354	-.029	-.384	-.057
-0.148	-.358	-.115	-.338	-.076	-.358	-.072
-0.029	-.457		-.451		-.486	
0.050	-.719		-.804		-.882	
0.250	-.931		-.964		-.954	
0.400	-1.031		-.980		-1.006	
0.550	-1.079		-1.045		-1.051	
0.700	-1.084		-1.017		-1.126	
0.850	-1.067		-1.051		-1.167	
0.950	-.992		-1.043		-1.111	

TABLE 25 (D)  
PRESSURE PROFILE ON NACELLE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .098

ALPHA = 4.99 DEG  
EFF. VEL. RATIO = .098

ALPHA = 7.98 DEG  
EFF. VEL. RATIO = .097

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.620	-36.351	-37.135	-35.639	-18.029	-35.258	-39.173
-0.634	-31.041	-33.312	-29.318	-35.470	-28.253	-37.645
-0.648	-2.894	-6.314	-5.155	-8.467	-3.629	-11.295
-0.662	-0.666	.701	-5.59	.729	.414	.740
-0.676	.003		-1.129		-.247	
-0.690	-.157		-.283		-.389	
-0.704	-.227	-.340	-.519	-.269	-.418	-.219
-0.718	-.241	-.390	-.326	-.375	-.396	-.325
-0.732	-.241	-.324	-.396	-.487	-.446	-.475
-0.746	-.333		-.407		-.595	
-0.760	-.347		-.529		-.610	
-0.774	-.382		-.651		-.739	
-0.788	-.655		-.689		-.806	
-0.802	-.622		-.645		-.724	
-0.816	-.615		-.649		-.697	
-0.830	-.642		-.606		-.707	
-0.844	-.733		-.704		-.813	

ALPHA = 10.04 DEG  
EFF. VEL. RATIO = .094

ALPHA = 11.97 DEG  
EFF. VEL. RATIO = .096

ALPHA = 14.01 DEG  
EFF. VEL. RATIO = .098

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.620	-34.630	-35.221	-33.928	-39.572	-33.645	-40.120
-0.634	-27.237	-36.490	-25.330	-38.803	-25.334	-40.809
-0.648	-2.691	-11.540	-2.345	-13.157	-1.431	-14.677
-0.662	.317	.726	.138	.740	-.005	.586
-0.676	-.323		-.463		-.525	
-0.690	-.457		-.554		-.610	
-0.704	-.429	-.323	-.540	-.234	-.581	-.231
-0.718	-.424	-.316	-.512	-.351	-.581	-.371
-0.732	-.492	-.271	-.575	-.512	-.638	-.518
-0.746	-.633		-.722		-.835	
-0.760	-.607		-.797		-.919	
-0.774	-.825		-.611		-1.045	
-0.788	-.845		-.439		-1.032	
-0.802	-.757		-.848		-.928	
-0.816	-.725		-.767		-.823	
-0.830	-.743		-.801		-.820	
-0.844	-.852		-.832		-.911	

ALPHA = 15.03 DEG  
EFF. VEL. RATIO = .097

ALPHA = 18.00 DEG  
EFF. VEL. RATIO = .098

ALPHA = 20.00 DEG  
EFF. VEL. RATIO = .098

X/C	CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
-0.620	-33.725	-43.303	-33.240	-40.852	-32.331	-41.177
-0.634	-24.520	-41.661	-23.666	-42.503	-23.359	-43.142
-0.648	-1.564	-16.316	-1.119	-17.677	-.550	-18.682
-0.662	-.092	.744	-.103	.483	-.203	.367
-0.676	-.520		-.576		-.626	
-0.690	-.593		-.611		-.650	
-0.704	-.593		-.562	-.181	-.591	-.154
-0.718	-.563	-.167	-.533	-.329	-.527	-.302
-0.732	-.527	-.307	-.547	-.477	-.548	-.457
-0.746	-.512	-.353	-.703		-.696	
-0.760	-.818		-.907		-.914	
-0.774	-.960		-1.293		-1.174	
-0.788	-1.207		-1.321		-1.230	
-0.802	-1.243		-1.304		-1.382	
-0.816	-1.033		-1.155		-1.315	
-0.830	-1.095		-1.053		-1.264	
-0.844	-.924		-1.148		-1.155	
-0.858	-.941					

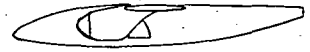


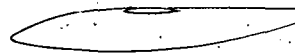
TABLE 26  
PRESSURE PROFILE ON NACELLE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH INLETS CLOSED

ALPHA = -.03 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 3.99 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 8.03 DEG EFF. VEL. RATIO = $\infty$		
CP			CP			CP		
	UPPER	LOWER	UPPER	LOWER		UPPER	LOWER	
X/C								
-.620								
-.684								
-.716	-.190	.689	-.126	.574		-.057	.517	
-.684	.005	-.106	-.290	.004		-.427	.100	
-.593	-.336		-.456			-.542		
-.501	-.301		-.380			-.460		
-.380	-.216	-.350	-.277	-.295		-.331	-.267	
-.268	-.154	-.265	-.208	-.257		-.256	-.218	
-.148	-.155	-.246	-.206	-.241		-.266	-.207	
-.029	-.209		-.291			-.358		
.060	-.179		-.245			-.340		
.250	-.260		-.321			-.405		
.400	-.331		-.357			-.414		
.550	-.263		-.256			-.279		
.700	-.201		-.163			-.159		
.850	-.162		-.092			-.059		
.950	-.154		-.069			-.001		

ALPHA = 10.02 DEG EFF. VEL. RATIO = $\infty$			ALPHA = 12.00 DEG EFF. VEL. RATIO = $\infty$		
CP			CP		
	UPPER	LOWER	UPPER	LOWER	
X/C					
-.620					
-.684					
-.716	-.002	.475	.042	.418	
-.684	-.415	.160	-.493	.182	
-.593	-.603		-.641		
-.501	-.522		-.569		
-.380	-.384	-.240	-.451	-.217	
-.268	-.298	-.190	-.369	-.175	
-.148	-.308	-.183	-.351	-.172	
-.029	-.417		-.453		
.060	-.392		-.440		
.250	-.455		-.480		
.400	-.440		-.446		
.550	-.307		-.305		
.700	-.185		-.176		
.850	-.079		-.064		
.950	-.006		.009		

TABLE 27.(A)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = -11.96 DEG      Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.98		.94		1.00		1.02	
.010	-.88	.65	.53	.26				
.015					-.20	.03		
.025	-.917	.246	-.509	.095	-.329	-.022	-.184	-.234
.050	-.561	.158	-.365	-.043	-.234	-.159	-.219	-.165
.100	-.428	-.011	-.328	-.131	-.294	-.120	-.205	-.145
.150	-.389	-.061	-.355	-.179	-.300	-.210	-.229	-.218
.250	-.370	-.198	-.354	-.230	-.303	-.289	-.311	-.287
.400	-.309	-.216	-.338	-.250	-.293	-.257	-.261	-.273
.550	-.209	-.171	-.214	-.174	-.241	-.189	-.202	-.207
.700	-.118	-.093	-.097	-.094	-.129	-.123	-.120	-.127
.850	-.022	.004	-.022	-.002	.010	.004	.012	-.003
.950	.056	.076	.052	.076	.061	.072	.057	.079

BETA = -7.93 DEG      Q = 2844 N/SQ.M. (59.41 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

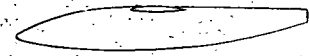
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	1.01		.91		.97		1.01	
.010	-.59	.41	.56	.18				
.015					-.16	-.10		
.025	-.585	.076	-.445	-.120	-.341	-.169	-.159	-.233
.050	-.473	-.009	-.419	-.121	-.238	-.165	-.188	-.185
.100	-.445	-.103	-.284	-.151	-.241	-.175	-.200	-.228
.150	-.357	-.215	-.332	-.234	-.331	-.279	-.238	-.269
.250	-.316	-.253	-.311	-.266	-.315	-.317	-.294	-.324
.400	-.298	-.284	-.293	-.279	-.307	-.303	-.275	-.295
.550	-.192	-.209	.210	-.213	-.251	-.206	-.205	-.218
.700	-.098	-.117	-.094	-.107	-.126	-.136	-.126	-.147
.850	-.016	-.016	-.018	-.016	.001	-.017	.000	-.013
.950	.066	.070	.053	.077	.055	.060	.050	.074

BETA = -3.96 DEG      Q = 2846 N/SQ.M. (59.43 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	1.00		.73		.96		.99	
.010	-.15	.24	.58	.22				
.015					-.09	-.23		
.025	-.495	-.101	-.253	-.204	-.255	-.240	-.270	-.459
.050	-.372	-.109	-.347	-.166	-.245	-.114	-.235	-.188
.100	-.310	-.196	-.229	-.255	-.209	-.241	-.201	-.248
.150	-.297	-.268	-.274	-.261	-.293	-.288	-.245	-.295
.250	-.318	-.332	-.289	-.328	-.237	-.322	-.308	-.303
.400	-.237	-.315	-.306	-.332	-.279	-.324	-.297	-.296
.550	-.191	-.241	-.207	-.243	-.255	-.223	-.198	-.222
.700	-.104	-.120	-.109	-.125	-.116	-.125	-.115	-.144
.850	-.024	-.035	-.019	-.025	.006	-.024	.001	-.025
.950	.062	.056	.052	.069	.050	.064	.061	.076

TABLE 27 (A) - Continued  
PRESSURE PROFILE ON WING

LIFT JET ALONE



BETA = .04 DEG		Q = 2842 N/SQ.M. (59.37 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP		CP		CP		CP		
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	
000	.97		.68		.89		.98		
010	-.01	-.14	.59	-.07					
015					-.16	-.28			
025	-.361	-.227	-.282	-.274	-.174	-.274	-.269	-.248	
050	-.278	-.212	-.203	-.248	-.288	-.231	-.167	-.168	
100	-.262	-.274	-.266	-.297	-.193	-.235	-.203	-.244	
150	-.317	-.315	-.249	-.287	-.291	-.299	-.208	-.320	
250	-.273	-.321	-.295	-.307	-.270	-.311	-.334	-.339	
400	-.291	-.357	-.304	-.346	-.283	-.334	-.288	-.301	
550	-.183	-.275	-.198	-.242	-.255	-.230	-.197	-.234	
700	-.100	-.120	-.095	-.115	-.122	-.122	-.107	-.137	
850	-.022	-.039	-.016	-.031	-.001	-.029	.006	-.016	
950	.065	.058	.056	.067	.063	.063	.062	.080	

BETA = 4.02 DEG			Q = 2841 N/SQ.M. (59.34 LBF/SQ.FT.)			EFFECT. VELOC. RATIO = ∞					
ETA = .250			ETA = .387			ETA = .524			ETA = .800		
X/C	CP		CP		CP		CP		CP		
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	
.000	.89		.49		.85		.94				
.010	.13	-.30	.57	-.30							
.015					-.03	-.21					
.025	-.174	-.298	-.235	-.372	-.299	-.421	-.090	-.273			
.050	-.260	-.376	-.188	-.239	-.123	-.164	-.128	-.273			
.100	-.201	-.319	-.237	-.268	-.161	-.350	-.202	-.244			
.150	-.234	-.366	-.243	-.285	-.261	-.304	-.227	-.298			
.250	-.236	-.392	-.278	-.326	-.223	-.379	-.294	-.361			
.400	-.274	-.381	-.284	-.351	-.289	-.346	-.297	-.307			
.550	-.175	-.277	-.185	-.250	-.256	-.233	-.172	-.233			
.700	-.098	-.115	-.101	-.122	-.112	-.127	-.108	-.146			
.850	-.024	-.041	-.016	-.031	.007	-.024	.007	-.019			
.950	.064	.059	.061	.070	.067	.065	.063	.076			

BETA = 8.04 DEG		Q = 2842 N/SQ.M. (59.35 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP		CP		CP		CP		
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	
.000	.66		.33		.84		.86		
.010	.19	-.52	.57	-.14					
.015					.10	-.60			
.025	-.030	-.740	-.061	-.443	-.110	-.283	-.148	-.275	
.050	-.087	-.360	-.121	-.317	-.193	-.356	-.091	-.316	
.100	-.117	-.429	-.111	-.288	-.084	-.295	-.227	-.185	
.150	-.137	-.462	-.217	-.419	-.239	-.359	-.161	-.252	
.250	-.240	-.455	-.240	-.402	-.282	-.346	-.255	-.374	
.400	-.234	-.358	-.237	-.355	-.274	-.378	-.252	-.292	
.550	-.175	-.280	-.168	-.257	-.257	-.240	-.186	-.252	
.700	-.092	-.141	-.086	-.109	-.101	-.125	-.115	-.138	
.850	-.015	-.034	-.009	-.033	.012	-.042	.017	-.013	
.950	.059	.063	.062	.072	.070	.062	.065	.078	



TABLE 27 (A) Conducted  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = 12.34 DEG

ETA = .250

Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)

ETA = .387

ETA = .524

EFFECT. VELOC. RATIO =  $\infty$

ETA = .800

X/C	UPPER	CP	LOWER	UPPER	CP	LOWER	UPPER	CP	LOWER	UPPER	CP	LOWER
.000	.50			.33			.73			.86		
.010	.39			.55			.21					
.015		-.94			-.39		-.053		-.57		-.105	
.025			-.821			-.553	-.028		-.446		-.138	
.050	.103		-.518	.105		-.403	.130		-.395		-.216	
.100	.087		-.459	.051		-.380	.147		-.352		-.188	
.150	-.061		-.490	-.083		-.438	.177		-.369		-.238	
.250	-.105		-.466	-.136		-.403	.234		-.403		-.229	
.400	-.206		-.376	-.223		-.386	.255		-.266		-.165	
.550	-.225		-.276	-.232		-.258	.089		-.119		-.106	
.700	-.162		-.139	-.166		-.113	.013		-.031		-.021	
.850	-.092		-.036	-.082		-.026	.071		.064		.074	
.950	-.015		.063	-.009		.077						
	.050			.066								

TABLE 27 (B)  
PRESSURE PROFILE ON WING

LIFT JET ALONE



BETA = -11.99 DEG      Q = 2846 N/SQ.M. (59.43 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .317

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.91		.99		1.00		1.00	
.010	-.82	.64	.41	.44				
.015					-.42	-.06		
.025	-1.008	.210	-.648	.006	-.392	-.098	-.268	-.127
.050	-.570	.088	-.382	-.030	-.336	-.093	-.254	-.181
.100	-.436	.063	-.365	-.130	-.327	-.193	-.211	-.157
.150	-.543	-.136	-.405	-.181	-.318	-.246	-.249	-.251
.250	-.406	-.168	-.359	-.251	-.350	-.282	-.316	-.292
.400	-.343	-.266	-.351	-.279	-.312	-.280	-.299	-.288
.550	-.224	-.218	-.239	-.219	-.164	-.221	-.207	-.217
.700	-.136	-.102	-.127	-.104	-.139	-.136	-.130	-.136
.850	-.041	-.032	-.038	-.026	-.018	-.028	-.012	-.020
.950	.047	.054	.035	.058	.045	.048	.042	.055

BETA = -7.99 DEG      Q = 2841 N/SQ.M. (59.34 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .317

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.99		.90		1.00		1.01	
.010	-.57	.37	.46	.21				
.015					-.26	-.15		
.025	-.639	.033	-.456	.048	-.360	-.089	-.313	-.276
.050	-.421	-.032	-.435	-.101	-.363	-.140	-.245	-.209
.100	-.394	-.162	-.297	-.182	-.259	-.220	-.215	-.154
.150	-.380	-.212	-.379	-.224	-.350	-.240	-.332	-.283
.250	-.368	-.317	-.348	-.315	-.324	-.297	-.335	-.319
.400	-.318	-.325	-.340	-.312	-.318	-.324	-.304	-.312
.550	-.215	-.261	-.228	-.247	-.175	-.226	-.209	-.212
.700	-.122	-.117	-.118	-.123	-.126	-.132	-.119	-.145
.850	-.036	-.044	-.033	-.032	-.012	-.037	-.006	-.036
.950	.049	.049	.038	.059	.048	.049	.040	.054

BETA = -3.97 DEG      Q = 2849 N/SQ.M. (59.50 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .317

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.99		.82		.95		1.00	
.010	-.21	.13	.48	-.01				
.015					-.29	-.27		
.025	-.485	-.115	-.532	-.116	-.262	-.243	-.192	-.272
.050	-.369	-.075	-.326	-.209	-.295	-.175	-.261	-.263
.100	-.319	-.259	-.284	-.256	-.321	-.271	-.297	-.259
.150	-.376	-.295	-.353	-.345	-.279	-.279	-.248	-.302
.250	-.336	-.366	-.317	-.365	-.309	-.343	-.344	-.325
.400	-.321	-.391	-.335	-.354	-.321	-.318	-.302	-.294
.550	-.209	-.305	-.238	-.283	-.190	-.255	-.204	-.244
.700	-.118	-.148	-.126	-.145	-.116	-.140	-.099	-.131
.850	-.043	-.059	-.045	-.049	-.020	-.048	-.008	-.039
.950	.041	.042	.032	.048	.043	.048	.043	.054

TABLE 27 (B) CONTINUED  
PRESSURE PROFILE ON WING

LIFT JET ALONE



BETA = .03 DEG Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .317

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.93		.77		.91		.98	
.010	-.17	-.02	.51	-.16				
.015					-.13	-.25		
.025	-.272	-.475	-.206	-.378	-.298	-.309	-.194	-.290
.050	-.243	-.244	-.238	-.286	-.216	-.301	-.189	-.229
.100	-.264	-.360	-.207	-.298	-.212	-.269	-.189	-.270
.150	-.309	-.403	-.353	-.344	-.329	-.326	-.267	-.359
.250	-.272	-.423	-.287	-.415	-.292	-.387	-.312	-.357
.400	-.292	-.437	-.318	-.357	-.317	-.376	-.280	-.324
.550	-.208	-.313	-.231	-.292	-.208	-.259	-.211	-.237
.700	-.114	-.183	-.114	-.160	-.111	-.157	-.095	-.134
.850	-.036	-.066	-.033	-.059	-.014	-.054	-.010	-.040
.950	.044	.034	.039	.044	.042	.046	.050	.059

BETA = 4.01 DEG Q = 2851 N/SQ.M. (59.55 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .318

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.72		.54		.88		.95	
.010	-.00	-.47	.50	-.19				
.015					-.16	-.41		
.025	-.095	-.596	-.146	-.525	-.226	-.490	-.225	-.336
.050	-.280	-.456	-.234	-.330	-.267	-.325	-.192	-.278
.100	-.192	-.397	-.182	-.373	-.209	-.313	-.227	-.271
.150	-.282	-.495	-.289	-.460	-.263	-.400	-.242	-.300
.250	-.264	-.472	-.280	-.449	-.278	-.372	-.340	-.363
.400	-.268	-.469	-.298	-.406	-.299	-.377	-.289	-.318
.550	-.207	-.347	-.213	-.309	-.210	-.276	-.206	-.247
.700	-.113	-.195	-.105	-.170	-.108	-.160	-.104	-.136
.850	-.046	-.078	-.037	-.069	-.022	-.061	-.007	-.041
.950	.040	.035	.036	.047	.048	.042	.051	.058

BETA = 8.00 DEG Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .318

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.60		.40		.84		.91	
.010	.33	-.68	.48	-.32				
.015					.10	-.65		
.025	.006	-.740	-.018	-.703	-.058	-.501	-.090	-.518
.050	.018	-.511	-.042	-.341	-.042	-.296	-.078	-.268
.100	-.096	-.495	-.141	-.424	-.197	-.332	-.150	-.266
.150	-.188	-.550	-.245	-.453	-.250	-.445	-.229	-.345
.250	-.241	-.550	-.223	-.462	-.275	-.471	-.305	-.414
.400	-.266	-.498	-.275	-.425	-.277	-.388	-.292	-.358
.550	-.192	-.354	-.199	-.327	-.220	-.280	-.208	-.262
.700	-.118	-.202	-.107	-.178	-.104	-.167	-.116	-.146
.850	-.046	-.081	-.031	-.068	-.007	-.071	-.005	-.050
.950	.029	.029	.038	.044	.047	.036	.052	.055

TABLE 27 (B) CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = 12.03 DEG

Q = 2840 N/SO.M. (59.31 LBF/SO.FT.)

EFFECT. VELOC. RATIO = .318

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.16		-.04		.55		.84	
.010	.46	-1.30	.44	-.92				
.015					.11	-.94		
.025	.240	-1.253	.100	-.730	.078	-.653	-.193	-.365
.050	-.025	-.903	-.089	-.591	-.126	-.518	-.187	-.336
.100	-.049	-.623	-.008	-.510	-.208	-.414	-.080	-.371
.150	-.170	-.676	-.169	-.584	-.119	-.468	-.280	-.368
.250	-.177	-.531	-.218	-.555	-.249	-.448	-.251	-.374
.400	-.232	-.512	-.238	-.470	-.253	-.397	-.246	-.384
.550	-.178	-.371	-.180	-.340	-.226	-.323	-.193	-.247
.700	-.105	-.208	-.110	-.202	-.101	-.175	-.114	-.145
.850	-.042	-.087	-.032	-.068	-.013	-.078	.003	-.032
.950	.031	.024	.040	.040	.044	.033	.055	.060

TABLE 27 (C)  
PRESSURE PROFILE ON WING



LIFT JET ALONE

BETA = -12.01 DEG

Q = 2746 N/SQ.M. (57.36 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.96		.87		.98		1.01	
.010	-.72	.63	1.01	.47				
.015					-.17	.03		
.025	-.884	.156	-.440	-.105	-.440	-.097	-.252	-.096
.050	-.622	.066	-.351	-.123	-.448	-.127	-.213	-.199
.100	-.468	-.066	-.348	-.119	-.326	-.192	-.255	-.206
.150	-.438	-.157	-.389	-.235	-.354	-.280	-.249	-.242
.250	-.398	-.240	-.349	-.270	-.349	-.262	-.327	-.315
.400	-.339	-.278	-.342	-.277	-.331	-.286	-.296	-.288
.550	-.217	-.201	-.225	-.225	.849	-.211	-.208	-.221
.700	-.130	-.091	-.124	-.086	-.130	-.128	-.118	-.138
.850	-.039	-.010	-.039	-.002	-.009	-.025	-.007	-.020
.950	.050	.064	.035	.066	.045	.052	.042	

BETA = -8.02 DEG

Q = 2745 N/SQ.M. (57.32 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	1.01		.91		.99		1.01	
.010	-.61	.31		.01				
.015					-.21	-.15		
.025	-.613	.040	-.431	-.117	-.338	-.208	-.216	-.206
.050	-.425	-.082	-.474	-.188	-.268	-.233	-.251	-.243
.100	-.339	-.139	-.274	-.183	-.306	-.225	-.224	-.211
.150	-.406	-.258	-.368	-.297	-.297	-.269	-.263	-.298
.250	-.345	-.284	-.359	-.345	-.331	-.348	-.317	-.316
.400	-.321	-.329	-.326	-.328	-.334	-.315	-.285	-.301
.550	-.211	-.241	-.230	-.234	.770	-.239	-.211	-.231
.700	-.120	-.108	-.119	-.130	-.123	-.120	-.114	-.131
.850	-.033	-.028	-.034	-.028	-.012	-.036	-.009	-.027
.950	.058	.062	.041	.060	.051	.050	.044	.058

BETA = -4.02 DEG

Q = 2746 N/SQ.M. (57.35 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.99		.73		.95		1.00	
.010	-.20	-.04		.01				
.015					-.05	-.18		
.025	-.639	-.163	-.348	-.255	-.275	-.093	-.262	-.245
.050	-.259	-.140	-.283	-.238	-.236	-.200	-.235	-.202
.100	-.286	-.218	-.225	-.298	-.262	-.265	-.228	-.267
.150	-.368	-.376	-.308	-.306	-.244	-.333	-.204	-.294
.250	-.336	-.348	-.300	-.402	-.307	-.366	-.302	-.337
.400	-.313	-.354	-.307	-.366	-.307	-.337	-.292	-.315
.550	-.199	-.283		-.276	.710	-.250	-.207	-.244
.700	-.125	-.141	-.098	-.131	-.111	-.137	-.098	-.133
.850	-.028	-.032	-.035	-.039	-.009	-.036	-.015	-.036
.950	.057	.055	.044	.054	.052	.052	.043	.057

TABLE 27 (C) CONTINUED  
PRESSURE PROFILE ON WING

LIFT JET ALONE



BETA = -.05 DEG

Q = 2742 N/SQ.M. (57.27 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .198

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.86		.63		.86		.98	
.010	.06	-.35		-.36				
.015					-.03	-.42		
.025	-.226	-.635	-.144	-.327	-.236	-.404	-.166	-.312
.050	-.224	-.321	-.282	-.336	-.136	-.351	-.188	-.318
.100	-.202	-.363	-.170	-.284	-.190	-.263	-.214	-.266
.150	-.297	-.383	-.323	-.387	-.286	-.377	-.214	-.338
.250	-.310	-.430	-.286	-.431	-.285	-.434	-.308	-.365
.400	-.282	-.435	-.319	-.391	-.329	-.383	-.277	-.325
.550	-.201	-.318	-.212	-.287	.657	-.264	-.220	-.256
.700	-.112	-.188	-.101	-.167	-.103	-.155	-.094	-.141
.850	-.035	-.053	-.030	-.058	-.009	-.051	-.011	-.043
.950	.052	.050	.041	.055	.048	.048	.047	.051

BETA = 4.03 DEG

Q = 2748 N/SQ.M. (57.40 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.62		.40		.79		.95	
.010	.12	-.64		-.47				
.015					.08	-.49		
.025	-.163	-.695	-.078	-.587	-.040	-.537	-.213	-.260
.050	-.097	-.563	-.137	-.427	-.174	-.392	-.103	-.306
.100	-.102	-.499	-.116	-.443	-.214	-.375	-.257	-.310
.150	-.237	-.544	-.275	-.560	-.212	-.503	-.229	-.399
.250	-.231	-.497	-.285	-.495	-.290	-.436	-.289	-.401
.400	-.263	-.514	-.277	-.418	-.289	-.400	-.275	-.313
.550	-.202	-.339	-.206	-.321	.604	-.303	-.200	-.255
.700	-.119	-.194	-.101	-.180	-.100	-.170	-.100	-.144
.850	-.042	-.070	-.032	-.062	-.009	-.065	-.011	-.042
.950	.038	.033	.041	.044	.047	.036	.049	.054

BETA = 7.94 DEG

Q = 2745 N/SQ.M. (57.34 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.38		.10		.27		.92	
.010	.47	-.83		-.86				
.015					.00			
.025	.131	-1.149	-.111	-.902	-.009	-.540	-.027	-.526
.050	.022	-.679	-.002	-.698	-.041	-.467	-.093	-.421
.100	-.091	-.573	-.069	-.469	-.167	-.414	-.187	-.271
.150	-.142	-.616	-.165	-.589	-.201	-.448	-.198	-.395
.250	-.230	-.645	-.224	-.546	-.236	-.557	-.281	-.425
.400	-.249	-.522	-.263	-.510	-.288	-.426	-.273	-.336
.550	-.182	-.367	-.189	-.360	.545	-.314	-.197	-.265
.700	-.111	-.216	-.103	-.207	-.113	-.192	-.104	-.147
.850	-.045	-.090	-.039	-.090	-.015	-.068	-.003	-.049
.950	.030	.031	.030	.036	.041	.031	.052	.056

27 (C) CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = 11.63 DEG

Q = 2738 N/SQ.M. (57.19 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .200

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000	.02		-.30		.49		.88	
.010	.64	-1.47		-1.03				
.015					.28	-.93		
.025	.275	-1.645	.294	-1.157	.114	-.987	.074	-.619
.050	.088	-1.031	.073	-.679	-.052	-.653	-.032	-.371
.100	.001	-.706	-.051	-.611	-.131	-.537	-.134	-.387
.150	-.069	-.815	-.142	-.693	-.113	-.581	-.145	-.516
.250	-.178	-.720	-.181	-.580	-.210	-.507	-.254	-.461
.400	-.235		-.217	-.518	-.238	-.446	-.238	-.389
.550	-.170	-.413	-.178	-.390	.482	-.338	-.185	-.292
.700	-.118	-.262	-.103	-.226	-.103	-.205	-.112	-.163
.850	-.059	-.109	-.043	-.093	-.011	-.091	-.004	-.064
.950	.011	.013	.020	.033	.035	.022	.049	.045

TABLE 27 (D)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = -12.02 DEG      Q = 693 N/SQ.M. (14.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	1.01		.85		.92		1.05	
.010	-.17	.45	1.11	.09				
.015					-.09	-.24		
.025	-.465	-.081	-.288	-.165	-.115	-.117	-.142	-.174
.050	-.308	-.142	-.194	-.151	-.169	-.169	-.046	-.103
.100	-.263	-.031	-.276	-.133	-.208	-.210	-.110	-.183
.150	-.292	-.183	-.215	-.240	-.208	-.253	-.128	-.228
.250	-.249	-.213	-.269	-.197	-.203	-.241	-.228	-.274
.400	-.230	-.204	-.226	-.235	-.230	-.218	-.186	-.227
.550	-.113	-.138	-.141	-.154	-.806	-.141	-.120	-.149
.700	-.027	-.043	-.037	-.046	-.052	-.071	-.046	-.075
.850	.052	.074	.053	.054	.080	.046	.062	.018
.950	.130	.145	.124	.138	.126	.133	.114	.129

BETA = -8.03 DEG      Q = 695 N/SQ.M. (14.51 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.97		.59		.99		1.04	
.010	-.24	.19	1.00	.06				
.015					-.13	-.14		
.025	-.477	-.053	-.196	-.141	-.182	-.182	-.060	-.203
.050	-.209	-.144	-.184	-.200	-.166	-.268	-.046	-.157
.100	-.277	-.155	-.116	-.200	-.212	-.184	-.107	-.198
.150	-.246	-.218	-.159	-.191	-.178	-.243	-.091	-.275
.250	-.230	-.286	-.230	-.302	-.221	-.268	-.209	-.257
.400	-.193	-.297	-.223	-.289	-.212	-.246	-.168	-.249
.550	-.119	-.172	-.119	-.154	-.733	-.172	-.104	-.169
.700	-.030	-.038	-.039	-.052	-.050	-.064	-.043	-.059
.850	.048	.047	.054	.057	.079	.051	.061	.044
.950	.131	.117	.122	.139	.135	.128	.125	.140

BETA = -4.02 DEG      Q = 697 N/SQ.M. (14.55 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	1.00		.56		.77		1.05	
.010	.11	-.21	1.00	-.26				
.015					-.01	-.35		
.025	-.260	-.348	-.163	-.321	-.088	-.387	-.106	-.502
.050	-.167	-.242	-.061	-.172	-.117	-.416	-.011	-.212
.100	-.135	-.205	-.054	-.190	-.061	-.273	-.088	-.251
.150	-.192	-.312	-.190	-.285	-.104	-.298	-.165	-.233
.250	-.210	-.343	-.167	-.323	-.187	-.292	-.174	-.299
.400	-.209	-.263	-.183	-.282	-.212	-.290	-.155	-.239
.550	-.099	-.212	-.103	-.183	-.635	-.184	-.090	-.147
.700	-.021	-.065	-.021	-.057	-.031	-.068	-.027	-.070
.850	.067	.050	.073	.041	.083	.046	.086	.038
.950	.135	.140	.138	.150	.147	.127	.127	.140



TABLE 27 (D) CONTINUED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = -.04 DEG Q = 691 N/SQ.M. (14.42 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.69		.19		.54		1.01	
.010	.30	-.38	.88	-.77				
.015					.20	-.66		
.025	-.057	-.762	.126	-.778	.005	-.557	.080	-.429
.050	.014	-.605	-.030	-.425	-.073	-.441	-.066	-.292
.100	-.036	-.484	.007	-.315	-.018	-.399	-.082	-.313
.150	-.096	-.457	-.087	-.425	-.091	-.349	-.110	-.288
.250	-.103	-.445	-.135	-.421	-.162	-.272	-.162	-.299
.400	-.153	-.413	-.180	-.374	-.200	-.361	-.163	-.267
.550	-.095	-.239	-.086	-.254	-.610	-.227	-.097	-.195
.700	-.026	-.079	-.021	-.109	-.032	-.071	-.043	-.078
.850	.055	.022	.066	.007	.079	.022	.076	.017
.950	.129	.120	.124	.128	.131	.123	.127	.128

BETA = 3.99 DEG Q = 695 N/SQ.M. (14.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.22		-.24		.45		.94	
.010	.42	-1.15	.81	-.62				
.015					.32	-.91		
.025	.187	-1.081	.248	-.833	.142	-.720	-.031	-.491
.050	.099	-.729	-.008	-.584	.126	-.500	.049	-.389
.100	.015	-.539	.037	-.489	-.071	-.498	.015	-.280
.150	-.062	-.579	-.067	-.484	-.192	-.507	-.103	-.321
.250	-.105	-.499	-.105	-.489	-.139	-.457	-.185	-.263
.400	-.141	-.446	-.147	-.374	-.152	-.322	-.164	-.296
.550	-.091	-.287	-.083	-.253	-.557	-.194	-.083	-.200
.700	-.017	-.136	-.030	-.106	-.032	-.105	-.025	-.080
.850	.052	.009	.054	.008	.070	.002	.071	.027
.950	.112	.115	.121	.119	.129	.119	.126	.125

BETA = 7.98 DEG Q = 694 N/SQ.M. (14.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.08		-.24		.51		.85	
.010	.76	-1.60	.69	-.71				
.015					.44	-1.22		
.025	.374	-1.375	.331	-.805	.324	-.896	.067	-.646
.050	.221	-.853	.153	-.701	.181	-.508	.065	-.453
.100	.078	-.689	.085	-.585	.069	-.421	-.006	-.308
.150	-.010	-.644	-.026	-.589	-.099	-.521	-.053	-.403
.250	-.097	-.552	-.074	-.468	-.137	-.478	-.128	-.356
.400	-.123	-.381	-.144	-.430	-.125	-.369	-.130	-.302
.550	-.065	-.318	-.090	-.270	-.516	-.203	-.083	-.196
.700	-.015	-.137	-.011	-.100	-.028	-.085	-.010	-.097
.850	.038	-.005	.050	.022	.064	.004	.068	.025
.950	.105	.086	.123	.115	.118	.124	.133	.122

TABLE 27 (D) CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



BETA = 11.96 DEG Q = 695 N/SQ.M. (14.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .102

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-.76		-.82		.04		.79	
.010	.78	-2.18	.63	-1.53				
.015					.47	-1.19		
.025	.512	-1.502	.271	-1.166	.423	-1.062	.224	-.640
.050	.299	-1.017	.210	-.699	.163	-.642	.085	-.436
.100	.079	-.726	.151	-.622	.113	-.450	.015	-.404
.150	.067	-.636	.051	-.645	.033	-.540	-.030	-.441
.250	-.064	-.605	-.078	-.540	-.037	-.444	-.116	-.380
.400	-.093	-.422	-.129	-.433	-.111	-.398	-.114	-.304
.550	-.056	-.326	-.059	-.250	-.472	-.265	-.067	-.192
.700	-.009	-.133	-.012	-.136	-.024	-.144	-.005	-.090
.850	.042	-.012	.051	.001	.057	.012	.068	.024
.950	.090	.081	.110	.115	.120	.109	.128	.130

TABLE 28 (A)

## PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = -12.13 DEG

Q = 2848 N/SQ.M. (59.49 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		LOWER	CP		LOWER	CP		LOWER	CP		LOWER
	UPPER	UPPER		UPPER	UPPER		UPPER	UPPER		UPPER	UPPER	
.000										1.000		
.010				.694		.742						
.015							-.515		.057			
.025				-.987		.301	-.634		-.029	-.376		-.110
.050				-.744		.105	-.575		-.069	-.329		-.150
.100				-.571		-.036	-.458		-.122	-.287		-.189
.150				-.538		-.272	-.482		-.272	-.319		-.234
.250	-.364			-.487		-.357	-.442		-.312	-.364		-.307
.400	-.412			-.443		-.376	-.430		-.356	-.338		-.306
.550	-.331	-.331		-.331		-.312	-.300		-.294	-.257		-.239
.700	-.272	-.383		-.237		-.273	-.216		-.231	-.165		-.172
.850	-.261	-.465		-.175		-.278	-.084		-.123	-.040		-.058
.950	-.329	-.490		-.144		-.170	-.028		-.033	.015		.038

BETA = -8.16 DEG

Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		LOWER	CP		LOWER	CP		LOWER	CP		LOWER
	UPPER	UPPER		UPPER	UPPER		UPPER	UPPER		UPPER	UPPER	
.000				.999						.992		
.010				.704		.418						
.015							-.577		.041			
.025				-.876		.073	-.605		-.129	-.351		-.051
.050				-.581		-.086	-.562		-.065	-.250		-.211
.100				-.571		-.186	-.442		-.165	-.326		-.196
.150				-.544		-.316	-.462		-.276	-.360		-.286
.250	-.348			-.471		-.381	-.421		-.336	-.373		-.351
.400	-.420			-.440		-.404	-.427		-.378	-.356		-.308
.550	-.346	-.326		-.341		-.339	-.332		-.320	-.255		-.244
.700	-.282	-.396		-.238		-.290	-.214		-.249	-.157		-.184
.850	-.267	-.459		-.180		-.301	-.094		-.122	-.042		-.056
.950	-.333	-.480		-.155		-.201	-.030		-.033	.018		.032

BETA = -4.10 DEG

Q = 2843 N/SQ.M. (59.39 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		LOWER	CP		LOWER	CP		LOWER	CP		LOWER
	UPPER	UPPER		UPPER	UPPER		UPPER	UPPER		UPPER	UPPER	
.000				.953			.984			.955		
.010				.726		.227						
.015							-.527		-.111			
.025				-.725		-.091	-.579		-.189	-.385		-.151
.050				-.529		-.176	-.448		-.178	-.314		-.172
.100				-.464		-.215	-.460		-.218	-.363		-.218
.150				-.468		-.392	-.452		-.338	-.330		-.294
.250	-.322			-.434		-.456	-.405		-.398	-.381		-.356
.400	-.401			-.439		-.434	-.439		-.397	-.352		-.316
.550	-.330	-.352		-.340		-.360	-.325		-.341	-.272		-.269
.700	-.274	-.397		-.230		-.311	-.199		-.269	-.158		-.193
.850	-.261	-.443		-.182		-.308	-.098		-.147	-.054		-.065
.950	-.308	-.414		-.145		-.192	-.033		-.049	.010		.027

TABLE 28 (A) CONTINUED

## PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = -.01 DEG      Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.712		.943		.936	
.010			.727	.018				
.015					-.299	-.230		
.025			-.405	-.301	-.464	-.258	-.406	-.250
.050			-.414	-.344	-.323	-.229	-.330	-.159
.100			-.352	-.433	-.405	-.278	-.316	-.241
.150			-.406	-.431	-.364	-.354	-.358	-.301
.250	-.330		-.448	-.514	-.419	-.447	-.387	-.359
.400	-.407		-.431	-.456	-.387	-.418	-.353	-.345
.550	-.332	-.358	-.324	-.358	-.332	-.368	-.266	-.273
.700	-.278	-.377	-.237	-.311	-.203	-.273	-.144	-.201
.850	-.269	-.421	-.188	-.307	-.095	-.157	-.052	-.076
.950	-.296	-.412	-.150	-.206	-.037	-.053	.013	.021

BETA = 3.96 DEG      Q = 2848 N/SQ.M. (59.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.546		.916		.938	
.010			.700	-.487				
.015					-.206	-.253		
.025			-.388	-.560	-.454	-.380	-.428	-.264
.050			-.245	-.334	-.354	-.222	-.323	-.223
.100			-.311	-.409	-.354	-.241	-.336	-.215
.150			-.415	-.458	-.365	-.398	-.336	-.355
.250	-.303		-.387	-.514	-.417	-.433	-.375	-.363
.400	-.390		-.404	-.436	-.407	-.430	-.359	-.341
.550	-.331	-.353	-.321	-.337	-.318	-.377	-.281	-.281
.700	-.274	-.378	-.239	-.313	-.198	-.285	-.161	-.206
.850	-.268	-.405	-.185	-.333	-.095	-.164	-.047	-.071
.950	-.302	-.396	-.167	-.205	-.033	-.059	.016	.025

BETA = 7.97 DEG      Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.162		.828		.903	
.010			.656	-.385				
.015					-.277	-.148		
.025			-.181	-.737	-.316	-.336	-.274	-.232
.050			-.276	-.659	-.299	-.322	-.179	-.238
.100			-.226	-.526	-.304	-.328	-.296	-.315
.150			-.400	-.520	-.365	-.445	-.294	-.284
.250	-.277		-.344	-.548	-.338	-.443	-.396	-.419
.400	-.358		-.390	-.419	-.367	-.441	-.338	-.348
.550	-.324	-.395	-.304	-.343	-.295	-.367	-.252	-.289
.700	-.276	-.401	-.244	-.341	-.206	-.286	-.162	-.198
.850	-.255	-.408	-.179	-.356	-.096	-.162	-.043	-.068
.950	-.293	-.364	-.166	-.271	-.028	-.065	.020	.024

TABLE 28 (A) CONCLUDED

## PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = 11.98 DEG

Q = 2838 N/SQ.M. (59.28 LBF/SQ.FT.)

EFFECT. VELOC. RATIO =  $\infty$ 

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.370		.610		.868	
.010			.574	-1.018				
.015					.146	-.432		
.025			.005	-.992	-.249	-.565	-.206	-.194
.050			-.049	-.495	-.185	-.374	-.287	-.312
.100			-.162	-.593	-.244	-.372	-.240	-.262
.150			-.317	-.608	-.283	-.431	-.297	-.313
.250	-.260		-.317	-.557	-.292	-.472	-.332	-.372
.400	-.350		-.377	-.508	-.344	-.476	-.322	-.369
.550	-.306	-.363	-.280	-.474	-.270	-.406	-.243	-.293
.700	-.263	-.382	-.219	-.396	-.185	-.312	-.161	-.218
.850	-.229	-.347	-.174	-.358	-.083	-.190	-.029	-.068
.950	-.243	-.321	-.194	-.195	-.026	-.075	.025	.023

TABLE 28 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = -12.01 DEG Q = 2035 N/SQ.M. (42.49 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000							.969	
.010			.399	.579				
.015					-.626	-.118		
.025			-1.071	-.005	-.857	-.238	-.685	-.201
.050			-.823	-.110	-.588	-.377	-.426	-.157
.100			-.679	-.405	-.536	-.486	-.444	-.297
.150			-.606	-.644	-.531	-.568	-.460	-.424
.250	-.425		-.560	-.825	-.527	-.750	-.435	-.452
.400	-.485		-.536	-1.116	-.513	-.823	-.407	-.438
.550	-.397	-1.723	-.417	-1.247	-.398	-.792	-.323	-.386
.700	-.354	-2.242	-.322	-1.210	-.309	-.663	-.211	-.313
.850	-.362	-2.204	-.306	-.928	-.203	-.452	-.117	-.182
.950	-.519	-1.679	-.317	-.564	-.179	-.275	-.067	-.065

BETA = -8.04 DEG Q = 2036 N/SQ.M. (42.53 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.996		.985		1.007	
.010			.423	.494				
.015					-.677	-.359		
.025			-1.119	-.318	-.829	-.430	-.433	-.106
.050			-.687	-.358	-.538	-.471	-.437	-.231
.100			-.597	-.599	-.520	-.541	-.412	-.335
.150			-.569	-.722	-.529	-.618	-.420	-.406
.250	-.402		-.535	-.963	-.494	-.824	-.452	-.468
.400	-.481		-.537	-1.128	-.500	-.887	-.414	-.474
.550	-.401	-1.509	-.415	-1.191	-.413	-.816	-.324	-.412
.700	-.362	-2.021	-.333	-1.191	-.312	-.684	-.221	-.317
.850	-.390	-2.146	-.317	-.939	-.211	-.459	-.114	-.186
.950	-.601	-1.778	-.318	-.551	-.179	-.280	-.065	-.069

BETA = -4.02 DEG Q = 2031 N/SQ.M. (42.43 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.827		.966		1.003	
.010			.484	-.091				
.015					-.688	-.195		
.025			-.711	-.395	-.516	-.439	-.527	-.280
.050			-.596	-.519	-.551	-.374	-.433	-.253
.100			-.528	-.745	-.453	-.589	-.415	-.307
.150			-.572	-.902	-.482	-.747	-.413	-.368
.250	-.392		-.507	-1.098	-.522	-.854	-.503	-.489
.400	-.482		-.537	-1.239	-.496	-.952	-.448	-.498
.550	-.422	-1.628	-.427	-1.227	-.410	-.867	-.335	-.439
.700	-.387	-1.728	-.346	-1.151	-.310	-.719	-.214	-.326
.850	-.438	-1.890	-.325	-.927	-.225	-.492	-.120	-.199
.950	-.639	-1.761	-.335	-.554	-.188	-.297	-.074	-.079

TABLE 28 (B) CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = .01 DEG Q = 2034 N/SQ.M. (42.48 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.567		.928		.968	
.010			.542	-.564				
.015					-.537	-.580		
.025			-.708	-.562	-.607	-.666	-.559	-.199
.050			-.446	-.708	-.435	-.373	-.447	-.245
.100			-.481	-.876	-.473	-.606	-.425	-.297
.150			-.497	-1.085	-.424	-.794	-.439	-.377
.250	-.378		-.521	-1.225	-.505	-.935	-.472	-.506
.400	-.492		-.526	-1.335	-.512	-1.001	-.447	-.511
.550	-.441	-1.596	-.422	-1.288	-.416	-.911	-.345	-.447
.700	-.405	-1.610	-.345	-1.158	-.308	-.724	-.218	-.336
.850	-.433	-1.609	-.326	-.896	-.222	-.517	-.133	-.218
.950	-.624	-1.478	-.334	-.532	-.198	-.310	-.077	-.092

BETA = 4.01 DEG Q = 2038 N/SQ.M. (42.56 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.703		.889		.902	
.010			.565	-.671				
.015					-.418	-.357		
.025			-.505	-.589	-.578	-.595	-.417	-.265
.050			-.490	-.701	-.545	-.554	-.457	-.179
.100			-.506	-.882	-.536	-.635	-.413	-.345
.150			-.490	-1.156	-.504	-.783	-.483	-.467
.250	-.398		-.522	-1.165	-.500	-.860	-.466	-.507
.400	-.481		-.529	-1.302	-.519	-.938	-.442	-.529
.550	-.442	-1.385	-.447	-1.245	-.413	-.875	-.347	-.442
.700	-.417	-1.438	-.360	-1.099	-.320	-.740	-.219	-.354
.850	-.456	-1.462	-.332	-.858	-.245	-.534	-.140	-.231
.950	-.687	-1.424	-.339	-.549	-.216	-.331	-.084	-.107

BETA = 7.99 DEG Q = 2030 N/SQ.M. (42.40 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.430		.891		.912	
.010			.606	-.661				
.015					-.319	-.771		
.025			-.389	-1.273	-.389	-.518	-.515	-.226
.050			-.354	-.953	-.484	-.592	-.431	-.289
.100			-.393	-.864	-.420	-.600	-.367	-.351
.150			-.505	-1.059	-.414	-.706	-.431	-.472
.250	-.361		-.514	-1.228	-.538	-.869	-.448	-.541
.400	-.490		-.514	-1.242	-.522	-.979	-.441	-.559
.550	-.452	-1.298	-.437	-1.193	-.418	-.900	-.357	-.481
.700	-.431	-1.299	-.380	-1.051	-.337	-.743	-.241	-.368
.850	-.473	-1.291	-.360	-.902	-.242	-.556	-.137	-.243
.950	-.684	-1.277	-.360	-.565	-.218	-.342	-.091	-.108

TABLE 28 (B) CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = 12.04 DEG      Q = 2035 N/SQ.M. (42.49 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.190		.785		.874	
.010			.587	-.963				
.015					-.295	-.529		
.025			-.308	-1.383	-.327	-.817	-.412	-.239
.050			-.272	-.858	-.407	-.439	-.470	-.339
.100			-.329	-.967	-.309	-.606	-.427	-.343
.150			-.384	-.998	-.494	-.825	-.387	-.521
.250	-.365		-.443	-1.212	-.467	-.889	-.451	-.534
.400	-.464		-.457	-1.248	-.495	-.995	-.472	-.549
.550	-.429	-1.317	-.442	-1.138	-.436	-.894	-.362	-.500
.700	-.428	-1.280	-.380	-1.059	-.349	-.768	-.258	-.385
.850	-.485	-1.276	-.373	-.932	-.255	-.572	-.136	-.256
.950	-.662	-1.224	-.362	-.571	-.237	-.354	-.091	-.122



TABLE 28 (C)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = -11.99 DEG      Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.905		.827		1.016	
.010			.065	.096				
.015					-.472	-.704		
.025			-.744	-.441	-.389	-.829	-.268	-.548
.050			-.617	-.482	-.361	-.730	-.285	-.510
.100			-.474	-.742	-.387	-.820	-.304	-.462
.150			-.514	-.981	-.481	-.959	-.354	-.526
.250	-.392		-.520	-1.166	-.468	-1.041	-.399	-.594
.400	-.445		-.468	-1.581	-.458	-1.104	-.380	-.578
.550	-.369	-3.502	-.392	-1.854	-.373	-1.026	-.303	-.495
.700	-.340	-4.036	-.328	-1.757	-.311	-.893	-.228	-.398
.850	-.334	-3.057	-.322	-1.231	-.228	-.595	-.135	-.228
.950	-.479	-1.748	-.361	-.706	-.221	-.364	-.085	-.100

BETA = -8.00 DEG      Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.736		.741		1.021	
.010			.081	-.377				
.015					-.149	-.963		
.025			-.467	-.792	-.315	-.970	-.175	-.474
.050			-.469	-.840	-.427	-.873	-.185	-.559
.100			-.408	-.818	-.346	-.916	-.287	-.562
.150			-.483	-1.055	-.384	-.958	-.325	-.604
.250	-.375		-.491	-1.795	-.420	-1.063	-.419	-.674
.400	-.430		-.496	-1.610	-.464	-1.187	-.382	-.625
.550	-.381	-2.995	-.404	-1.919	-.382	-1.121	-.300	-.526
.700	-.344	-3.592	-.351	-1.824	-.323	-.918	-.237	-.416
.850	-.371	-3.292	-.329	-1.266	-.249	-.627	-.131	-.246
.950	-.573	-2.134	-.387	-.739	-.227	-.378	-.087	-.114

BETA = -3.96 DEG      Q = 906 N/SQ.M. (18.93 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.110		.503		.985	
.010			.032	-1.057				
.015					.100	-1.343		
.025			-.265	-1.086	-.172	-1.171	-.203	-.832
.050			-.344	-.952	-.222	-.971	-.229	-.596
.100			-.370	-1.152	-.307	-.971	-.229	-.563
.150			-.417	-1.316	-.377	-1.107	-.319	-.657
.250	-.349		-.464	-1.434	-.399	-1.245	-.385	-.690
.400	-.425		-.466	-1.729	-.437	-1.286	-.396	-.671
.550	-.376	-3.475	-.380	-2.057	-.369	-1.177	-.319	-.557
.700	-.349	-3.765	-.355	-1.901	-.310	-.954	-.236	-.444
.850	-.375	-3.259	-.349	-1.390	-.246	-.676	-.130	-.262
.950	-.592	-2.395	-.386	-.776	-.231	-.396	-.086	-.118

TABLE 28 (C) CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = -.02 DEG Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.272		.517		.968	
.010			.005	-1.339				
.015					.159	-1.634		
.025			-.073	-1.400	-.106	-1.408	-.012	-.373
.050			-.182	-1.386	-.193	-1.153	-.174	-.585
.100			-.253	-1.365	-.207	-1.202	-.217	-.633
.150			-.396	-1.528	-.293	-1.256	-.318	-.666
.250	-.319		-.406	-1.566	-.416	-1.292	-.382	-.718
.400	-.414		-.447	-1.815	-.424	-1.376	-.378	-.679
.550	-.359	-3.182	-.381	-2.080	-.350	-1.252	-.290	-.559
.700	-.339	-3.807	-.343	-2.026	-.311	-1.003	-.218	-.428
.850	-.397	-3.425	-.342	-1.400	-.233	-.696	-.125	-.252
.950	-.632	-2.400	-.407	-.798	-.220	-.400	-.083	-.112

BETA = 3.99 DEG Q = 914 N/SQ.M. (19.09 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.813		.268		.936	
.010			-.006	-1.291				
.015					.344	-1.727		
.025			.086	-1.984	.015	-1.725	-.106	-.768
.050			-.051	-1.477	-.045	-1.273	-.190	-.615
.100			-.216	-1.406	-.214	-1.139	-.194	-.627
.150			-.358	-1.582	-.249	-1.360	-.285	-.689
.250	-.302		-.378	-1.671	-.361	-1.410	-.420	-.709
.400	-.423		-.447	-1.894	-.417	-1.413	-.386	-.706
.550	-.379	-3.061	-.384	-2.154	-.344	-1.287	-.320	-.580
.700	-.367	-3.667	-.349	-1.953	-.303	-1.041	-.217	-.417
.850	-.433	-3.373	-.357	-1.400	-.239	-.719	-.127	-.270
.950	-.720	-2.289	-.424	-.784	-.229	-.416	-.080	-.117

BETA = 7.99 DEG Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.382		-.280		.801	
.010			-.077	-2.669				
.015					.447	-1.955		
.025			.241	-2.262	.143	-1.874	-.055	-.947
.050			-.020	-1.834	.006	-1.375	-.244	-.625
.100			-.091	-1.721	-.154	-1.290	-.219	-.632
.150			-.268	-1.846	-.245	-1.401	-.266	-.704
.250	-.309		-.377	-1.818	-.318	-1.445	-.337	-.695
.400	-.388		-.415	-1.913	-.383	-1.428	-.364	-.702
.550	-.369	-3.066	-.376	-2.011	-.326	-1.283	-.282	-.587
.700	-.364	-3.137	-.347	-1.856	-.289	-1.039	-.208	-.443
.850	-.446	-2.712	-.359	-1.393	-.234	-.707	-.129	-.276
.950	-.713	-2.425	-.407	-.769	-.229	-.402	-.082	-.123

TABLE 28 (C) CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = 11.98 DEG

Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .201

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.734		-.805		.793	
.010			-.186	-3.006				
.015					.377	-2.240		
.025			.366	-2.829	.290	-1.987	-.013	-.850
.050			.108	-2.273	.073	-1.706	-.095	-.850
.100			-.095	-1.841	-.188	-1.334	-.107	-.659
.150			-.216	-1.893	-.147	-1.486	-.280	-.793
.250	-.264		-.322	-1.898	-.270	-1.502	-.306	-.749
.400	-.383		-.353	-1.974	-.352	-1.392	-.300	-.724
.550	-.359	-2.458	-.354	-1.974	-.317	-1.292	-.266	-.569
.700	-.364	-2.573	-.320	-1.808	-.271	-1.028	-.182	-.437
.850	-.457	-2.410	-.344	-1.301	-.222	-.700	-.118	-.269
.950	-.723	-2.322	-.405	-.787	-.228	-.393	-.075	-.126

TABLE 28 (D)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES.



BETA = -11.97 DEG      Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.449		-.763		.604	
.010			-3.720	-1.614				
.015					.841	-2.493		
.025			.178	-1.454	.604	-2.102	.409	-1.384
.050			.060	-1.202	.325	-1.530	.255	-1.112
.100			-.052	-1.244	.123	-1.370	.172	-.889
.150			-.114	-1.377	-.003	-1.363	.004	-.777
.250	-.094		-.149	-1.464	-.121	-1.498	-.107	-.853
.400	-.163		-.248	-2.005	-.166	-1.492	-.153	-.768
.550	-.126	-5.619	-.166	-2.678	-.163	-1.329	-.095	-.606
.700	-.106	-8.043	-.173	-2.404	-.119	-1.076	-.051	-.474
.850	-.139	-3.990	-.210	-1.529	-.102	-.690	-.007	-.217
.950	-.379	-2.259	-.312	-.913	-.163	-.366	.003	-.082

BETA = -8.03 DEG      Q = 226 N/SQ.M. ( 4.71 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

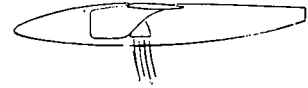
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.839		-1.293		.370	
.010			-3.431	-1.985				
.015					.838	-2.718		
.025			.293	-1.810	.705	-2.292	.475	-1.607
.050			.084	-1.530	.419	-1.670	.391	-1.160
.100			.014	-1.488	.195	-1.384	.160	-.951
.150			-.042	-1.677	.014	-1.537	.090	-.923
.250	-.091		-.133	-1.775	-.049	-1.680	-.098	-.925
.400	-.180		-.224	-2.161	-.176	-1.544	-.143	-.799
.550	-.149	-4.592	-.173	-2.445	-.149	-1.395	-.092	-.634
.700	-.146	-4.880	-.166	-2.428	-.129	-1.003	-.024	-.488
.850	-.197	-4.172	-.217	-1.602	-.109	-.684	.010	-.220
.950	-.441	-2.943	-.302	-1.030	-.187	-.356	.017	-.058

BETA = -3.97 DEG      Q = 224 N/SQ.M. ( 4.68 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.903		-1.579		.377	
.010			-3.162	-2.958				
.015						-3.190		
.025			.447	-2.543	.679	-2.522	.644	-1.706
.050			.222	-2.015	.412	-2.135	.320	-1.396
.100			.039	-1.903	.257	-1.790	.130	-1.136
.150			-.059	-1.875	.039	-1.650	.095	-1.009
.250	-.151		-.179	-1.870	-.144	-1.726	-.130	-.980
.400	-.233		-.246	-2.262	-.199	-1.651	-.147	-.836
.550	-.216	-4.420	-.212	-2.514	-.188	-1.440	-.103	-.710
.700	-.199	-4.997	-.223	-2.610	-.168	-1.164	-.072	-.529
.850	-.284	-3.854	-.267	-1.590	-.147	-.707	-.014	-.277
.950	-.574	-3.179	-.448	-1.055	-.216	-.403	.003	-.107

TABLE 28 (D) CONTINUED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = .01 DEG Q = 224 N/SQ.M. ( 4.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-3.083		-2.226		.316	
.010			-2.816	-3.476				
.015					.948	-3.448		
.025			.604	-3.266	.745	-3.224	.534	-1.714
.050			.344	-2.416	.499	-2.247	.351	-1.454
.100			.127	-2.679	.260	-1.770	.190	-1.067
.150			.007	-2.184	.112	-1.896	.084	-1.060
.250	-.084		-.126	-2.030	-.063	-1.860	-.091	-1.029
.400	-.219		-.219	-2.152	-.185	-1.730	-.154	-.903
.550	-.215	-4.239	-.202	-2.272	-.168	-1.444	-.117	-.699
.700	-.222	-4.236	-.195	-2.326	-.154	-1.135	-.062	-.478
.850	-.301	-3.606	-.270	-1.472	-.141	-.685	-.008	-.263
.950	-.617	-2.752	-.409	-1.056	-.222	-.423	.026	-.086

BETA = 4.03 DEG Q = 226 N/SQ.M. ( 4.71 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-4.020		-2.721		-.010	
.010			-2.735	-4.656				
.015					1.031	-4.139		
.025			.738	-3.587	.835	-3.434	.619	-1.855
.050			.437	-2.609	.563	-2.365	.346	-1.449
.100			.207	-2.525	.227	-1.966	.207	-1.135
.150			.074	-2.281	.116	-2.029	.060	-1.198
.250	-.122		-.108	-2.158	-.045	-1.830	-.073	-1.047
.400	-.221		-.221	-2.341	-.167	-1.711	-.153	-.949
.550	-.204	-3.584	-.208	-2.368	-.170	-1.474	-.119	-.770
.700	-.197	-3.861	-.218	-2.087	-.150	-1.135	-.069	-.489
.850	-.357	-3.252	-.285	-1.494	-.147	-.722	-.031	-.285
.950	-.682	-2.669	-.411	-1.061	-.218	-.407	-.004	-.103

BETA = 8.01 DEG Q = 224 N/SQ.M. ( 4.67 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-6.247		-3.914		-.235	
.010			-2.864	-5.401				
.015					1.076	-4.097		
.025			.808	-4.408	.879	-3.569	.618	-2.053
.050			.470	-2.991	.583	-2.476	.378	-1.631
.100			.237	-2.758	.329	-1.983	.244	-1.158
.150			.068	-2.653	.153	-1.941	.068	-1.095
.250	-.080		-.087	-2.286	-.017	-1.934	-.080	-1.090
.400	-.223		-.213	-2.129	-.154	-1.770	-.158	-.923
.550	-.202	-3.554	-.195	-2.238	-.161	-1.463	-.120	-.715
.700	-.247	-3.605	-.219	-2.040	-.158	-1.128	-.069	-.500
.850	-.342	-3.038	-.281	-1.446	-.134	-.674	-.018	-.284
.950	-.735	-2.635	-.431	-1.005	-.216	-.394	-.004	-.093

TABLE 28 (D) CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES



BETA = 12.00 DEG

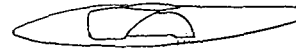
Q = 223 N/SQ.M. ( 4.66 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-6.115		-4.914		-.198	
.010			-2.952	-5.896				
.015						-4.900		
.025			.889	-5.232	.946	-4.194	.670	-1.949
.050			.579	-3.354	.543	-2.613	.367	-1.659
.100			.282	-2.690	.360	-2.238	.226	-1.208
.150			.070	-2.613	.176	-2.062	.063	-1.208
.250	-.078		-.071	-2.240	-.050	-1.898	-.092	-1.049
.400	-.204		-.228	-1.973	-.184	-1.741	-.163	-.936
.550	-.214	-2.353	-.225	-2.305	-.160	-1.419	-.132	-.700
.700	-.266	-2.962	-.211	-1.843	-.166	-1.053	-.060	-.502
.850	-.406	-2.819	-.283	-1.487	-.156	-.731	-.026	-.273
.950	-.776	-2.606	-.433	-.967	-.218	-.430	-.006	-.108

TABLE 29 (A)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = -12.01 DEG Q = 2844 N/SQ.M. (59.40 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.994		.993		.988	
.010			.313	.528				
.015					-.734	.036		
.025			-.828	.143	-.498	.001	-.403	-.134
.050			-.681	.061	-.471	-.083	-.320	-.243
.100			-.484	-.052	-.386	-.141	-.321	-.187
.150			-.499	-.244	-.486	-.231	-.284	-.249
.250	-.344		-.454	-.320	-.407	-.274	-.391	-.302
.400	-.387		-.421	-.312	-.420	-.285	-.337	-.289
.550	-.283	-.112	-.304	-.198	-.299	-.200	-.250	-.240
.700	-.211	-.053	-.204	-.170	-.208	-.163	-.167	-.159
.850	-.145	-.364	-.136	-.236	-.091	-.091	-.041	-.047
.950	-.097	-.136	-.086	-.140	-.020	-.012	.012	.032

BETA = -8.01 DEG Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.965		.989		.973	
.010			.360	.425				
.015					-.348	-.103		
.025			-.837	.022	-.429	.023	-.249	-.172
.050			-.509	-.088	-.520	-.095	-.276	-.197
.100			-.432	-.191	-.423	-.225	-.298	-.215
.150			-.463	-.308	-.405	-.287	-.306	-.246
.250	-.328		-.414	-.353	-.408	-.275	-.374	-.335
.400	-.377		-.406	-.335	-.398	-.293	-.356	-.303
.550	-.298	-.206	-.313	-.241	-.297	-.239	-.246	-.246
.700	-.216	-.095	-.197	-.184	-.184	-.176	-.161	-.168
.850	-.158	-.334	-.139	-.238	-.076	-.091	-.046	-.048
.950	-.112	-.133	-.080	-.131	-.020	-.017	.015	.036

BETA = -4.01 DEG Q = 2851 N/SQ.M. (59.55 LBF/SQ.FT.) EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.781		.974		.975	
.010			.393	.078				
.015					-.155	-.090		
.025			-.502	-.157	-.447	-.280	-.240	-.180
.050			-.395	-.117	-.315	-.202	-.207	-.158
.100			-.415	-.303	-.335	-.230	-.259	-.277
.150			-.452	-.394	-.345	-.280	-.337	-.298
.250	-.393		-.414	-.365	-.413	-.358	-.380	-.370
.400	-.385		-.411	-.332	-.380	-.326	-.342	-.331
.550	-.292	-.211	-.300	-.253	-.286	-.262	-.257	-.249
.700	-.223	-.134	-.213	-.197	-.178	-.176	-.144	-.177
.850	-.161	-.285	-.137	-.231	-.073	-.093	-.042	-.057
.950	-.115	-.109	-.082	-.122	-.014	-.017	.016	.032

TABLE 29 (A) Continued  
PRESSURE PROFILE ON WING



REAR NOZZLES DEFLECTED 90 DEGREES

BETA = 0.00 DEG		Q = 2842 N/SQ.M. (59.36 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000				.661		.938		.913	
.010				.405	-.199				
.015						-.193	-.433		
.025				-.360	-.377	-.357	-.342	-.361	-.255
.050				-.340	-.352	-.323	-.333	-.304	-.181
.100				-.320	-.397	-.417	-.267	-.317	-.213
.150				-.349	-.475	-.381	-.346	-.356	-.309
.250	-.319			-.371	-.411	-.360	-.355	-.360	-.346
.400	-.384			-.385	-.346	-.364	-.299	-.325	-.316
.550	-.306	-.222		-.308	-.247	-.277	-.253	-.256	-.248
.700	-.230	-.148		-.202	-.196	-.172	-.167	-.153	-.168
.850	-.176	-.305		-.137	-.225	-.074	-.101	-.050	-.062
.950	-.134	-.113		-.078	-.112	-.014	-.015	.017	.031

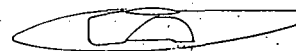
BETA = 4.01 DEG		Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000				.324		.877		.926	
.010				.391	-.467				
.015						-.209	-.166		
.025				-.170	-.575	-.327	-.519	-.360	-.351
.050				-.305	-.558	-.326	-.333	-.388	-.251
.100				-.291	-.501	-.257	-.253	-.271	-.228
.150				-.350	-.469	-.321	-.380	-.289	-.334
.250	-.284			-.368	-.423	-.349	-.355	-.389	-.316
.400	-.357			-.375	-.336	-.358	-.356	-.328	-.335
.550	-.283	-.217		-.287	-.237	-.284	-.267	-.260	-.270
.700	-.222	-.139		-.197	-.202	-.179	-.165	-.155	-.181
.850	-.163	-.306		-.135	-.225	-.078	-.094	-.040	-.064
.950	-.121	-.104		-.075	-.111	-.010	-.013	.022	.033

BETA = 7.99 DEG		Q = 2850 N/SQ.M. (59.52 LBF/SQ.FT.)				EFFECT. VELOC. RATIO = ∞			
ETA = .250		ETA = .387		ETA = .524		ETA = .800			
X/C	CP	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000				.026		.669		.888	
.010				.372	-1.065				
.015						-.035	-.614		
.025				-.028	-1.012	-.160	-.624	-.461	-.142
.050				-.082	-.687	-.295	-.412	-.108	-.367
.100				-.181	-.623	-.239	-.385	-.227	-.349
.150				-.223	-.551	-.316	-.381	-.304	-.331
.250	-.258			-.341	-.462	-.337	-.359	-.325	-.428
.400	-.346			-.354	-.362	-.330	-.355	-.330	-.350
.550	-.280	-.216		-.276	-.245	-.271	-.265	-.238	-.262
.700	-.214	-.155		-.198	-.212	-.187	-.161	-.155	-.176
.850	-.163	-.327		-.124	-.221	-.074	-.102	-.038	-.051
.950	-.118	-.098		-.071	-.108	-.008	-.012	.020	.032



TABLE 29 (A) CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = 12.00 DEG

Q = 2836 N/SQ.M. (59.23 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = ∞

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.875		.478		.829	
.010			.258	-1.660				
.015					.171	-.798		
.025			.183	-1.015	.055	-.639	-.269	-.386
.050			-.041	-.992	-.232	-.474	-.197	-.340
.100			-.172	-.684	-.133	-.484	-.209	-.329
.150			-.194	-.613	-.226	-.468	-.256	-.367
.250	-.235		-.288	-.455	-.278	-.357	-.285	-.378
.400	-.328		-.297	-.370	-.310	-.370	-.306	-.345
.550	-.266	-.233	-.241	-.255	-.245	-.259	-.220	-.270
.700	-.209	-.155	-.181	-.221	-.159	-.175	-.153	-.171
.850	-.149	-.322	-.121	-.225	-.067	-.099	-.025	-.055
.950	-.103	-.091	-.069	-.107	.015	-.004	.031	.034

TABLE 29 (B)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



BETA = -11.98 DEG      Q = 2041 N/SQ.M. (42.62 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.788		.869		.730	
.010			.317	.822				
.015					-1.163	.513		
.025			-1.252	.510	-1.092	.213	-.754	.138
.050			-1.052	.316	-.831	.294	-.594	.119
.100			-.713	.067	-.701	.058	-.463	-.063
.150			-.662	-.011	-.662	-.058	-.486	-.205
.250	-.450		-.631	-.203	-.575	-.190	-.521	-.242
.400	-.514		-.580	-.297	-.522	-.265	-.479	-.285
.550	-.426	-.067	-.453	-.253	-.431	-.273	-.348	-.247
.700	-.381	-.168	-.355	-.360	-.313	-.279	-.206	-.184
.850	-.342	-.956	-.303	-.572	-.226	-.266	-.129	-.130
.950	-.339	-.548	-.285	-.431	-.177	-.208	-.056	-.050

BETA = -8.01 DEG      Q = 2034 N/SQ.M. (42.49 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.970		.861		.927	
.010			.428	.775				
.015					-1.074	.402		
.025			-1.276	.327	-.984	.124	-.736	.058
.050			-.937	.162	-.844	.064	-.521	-.039
.100			-.626	.013	-.602	.028	-.449	-.054
.150			-.655	-.177	-.614	-.167	-.502	-.188
.250	-.446		-.615	-.297	-.565	-.227	-.469	-.293
.400	-.518		-.547	-.315	-.548	-.336	-.447	-.319
.550	-.437	-.187	-.433	-.311	-.416	-.327	-.350	-.273
.700	-.392	-.242	-.355	-.413	-.330	-.319	-.219	-.218
.850	-.355	-.989	-.316	-.619	-.235	-.297	-.119	-.135
.950	-.358	-.574	-.292	-.444	-.182	-.230	-.064	-.041

BETA = -3.97 DEG      Q = 2031 N/SQ.M. (42.43 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER	UPPER	CP LOWER
.000			.986		.945		.910	
.010			.579	.628				
.015					-.821	.257		
.025			-.953	.123	-.906	-.037	-.701	.011
.050			-.773	.057	-.635	.101	-.749	-.068
.100			-.536	-.006	-.569	-.150	-.495	-.132
.150			-.630	-.289	-.553	-.165	-.437	-.218
.250	-.427		-.534	-.385	-.542	-.322	-.505	-.251
.400	-.496		-.562	-.363	-.555	-.373	-.469	-.332
.550	-.445	-.207	-.448	-.369	-.410	-.371	-.344	-.303
.700	-.383	-.298	-.379	-.453	-.321	-.357	-.230	-.219
.850	-.371	-1.022	-.322	-.653	-.229	-.324	-.126	-.145
.950	-.382	-.601	-.305	-.471	-.189	-.232	-.066	-.050

TABLE 29 (B) CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



BETA = .01 DEG Q = 2034 N/SQ.M. (42.48 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.907		.960		.911	
.010			.654	.177				
.015					-.638	.287		
.025			-.871	-.070	-1.017	-.125	-.514	.097
.050			-.579	-.190	-.566	-.122	-.575	-.031
.100			-.562	-.297	-.573	-.163	-.462	-.152
.150			-.565	-.372	-.555	-.287	-.520	-.233
.250	-.424		-.524	-.377	-.519	-.351	-.496	-.321
.400	-.486		-.549	-.412	-.505	-.379	-.431	-.360
.550	-.430	-.232	-.432	-.401	-.412	-.388	-.341	-.306
.700	-.390	-.355	-.349	-.495	-.302	-.374	-.211	-.250
.850	-.377	-1.047	-.329	-.676	-.224	-.337	-.123	-.165
.950	-.397	-.644	-.310	-.490	-.187	-.238	-.061	-.066

BETA = 4.00 DEG Q = 2040 N/SQ.M. (42.60 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

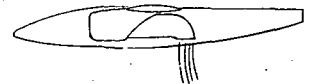
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.820		.918		.876	
.010			.657	.008				
.015					-.640	.029		
.025			-.599	-.200	-.669	-.234	-.481	-.010
.050			-.531	-.273	-.559	-.100	-.612	-.160
.100			-.501	-.389	-.527	-.226	-.416	-.147
.150			-.512	-.430	-.496	-.260	-.502	-.279
.250	-.386		-.473	-.415	-.485	-.365	-.488	-.304
.400	-.494		-.496	-.415	-.487	-.406	-.449	-.372
.550	-.428	-.226	-.433	-.427	-.410	-.420	-.339	-.300
.700	-.392	-.349	-.351	-.499	-.321	-.392	-.221	-.228
.850	-.378	-1.068	-.317	-.680	-.230	-.352	-.126	-.157
.950	-.402	-.655	-.301	-.495	-.185	-.240	-.061	-.058

BETA = 8.02 DEG Q = 2038 N/SQ.M. (42.57 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.437		.903		.788	
.010			.627	-.477				
.015					-.591	-.126		
.025			-.323	-.365	-.478	-.235	-.576	-.174
.050			-.325	-.364	-.472	-.202	-.337	-.147
.100			-.312	-.583	-.402	-.216	-.294	-.174
.150			-.414	-.559	-.409	-.375	-.448	-.302
.250	-.346		-.510	-.515	-.464	-.388	-.489	-.402
.400	-.481		-.497	-.449	-.438	-.449	-.426	-.405
.550	-.421	-.229	-.402	-.374	-.382	-.431	-.336	-.317
.700	-.380	-.370	-.348	-.509	-.312	-.391	-.210	-.244
.850	-.373	-1.099	-.312	-.680	-.228	-.347	-.125	-.153
.950	-.385	-.629	-.301	-.503	-.176	-.240	-.055	-.051

TABLE 29 (B) CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = 12.02 DEG

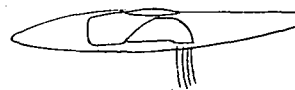
Q = 2031 N/SQ.M. (42.42 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.109		.832		.730	
.010			.574	-.901				
.015					-.028	-.218		
.025			-.148	-.578	-.373	-.260	-.616	-.254
.050			-.287	-.655	-.381	-.263	-.559	-.208
.100			-.228	-.585	-.381	-.286	-.391	-.160
.150			-.381	-.575	-.384	-.365	-.363	-.214
.250	-.313		-.410	-.560	-.400	-.380	-.400	-.313
.400	-.463		-.477	-.433	-.434	-.408	-.412	-.364
.550	-.402	-.214	-.392	-.422	-.371	-.410	-.325	-.331
.700	-.364	-.376	-.349	-.512	-.310	-.392	-.222	-.268
.850	-.368	-1.129	-.312	-.684	-.206	-.336	-.117	-.149
.950	-.382	-.638	-.255	-.493	-.173	-.229	-.050	-.043

TABLE 29 (C)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = -12.01 DEG

Q = 912 N/SQ.M. (19.05 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.874		.741		.812	
.010			.306	.816				
.015					-1.187	.321		
.025			-1.503	.448	-1.009	.235	-.739	-.010
.050			-1.038	.235	-.895	.019	-.572	-.007
.100			-.776	-.010	-.774	-.053	-.534	-.117
.150			-.746	-.147	-.703	-.159	-.563	-.230
.250	-.539		-.696	-.346	-.648	-.310	-.555	-.352
.400	-.579		-.656	-.454	-.601	-.389	-.483	-.374
.550	-.508	-.348	-.523	-.443	-.497	-.429	-.416	-.339
.700	-.459	-.427	-.457	-.564	-.404	-.427	-.294	-.285
.850	-.461	-1.286	-.423	-.815	-.316	-.411	-.188	-.224
.950	-.498	-.965	-.409	-.619	-.280	-.347	-.131	-.154

BETA = -8.00 DEG

Q = 908 N/SQ.M. (18.96 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.955		.936		.785	
.010			.433	.703				
.015					-.919	.323		
.025			-1.329	.205	-1.226	.217	-.742	.016
.050			-.969	.067	-.794	-.074	-.643	-.104
.100			-.770	-.164	-.680	-.180	-.534	-.147
.150			-.749	-.227	-.642	-.218	-.515	-.241
.250	-.473		-.701	-.427	-.638	-.389	-.548	-.357
.400	-.565		-.629	-.524	-.601	-.475	-.496	-.402
.550	-.503	-.356	-.540	-.523	-.519	-.493	-.387	-.376
.700	-.466	-.492	-.455	-.646	-.406	-.485	-.286	-.312
.850	-.466	-1.334	-.451	-.878	-.312	-.447	-.193	-.238
.950	-.513	-1.003	-.445	-.667	-.309	-.387	-.135	-.143

BETA = -4.00 DEG

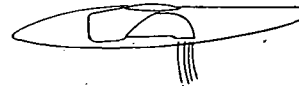
Q = 905 N/SQ.M. (18.91 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.958		.947		.897	
.010			.401	.317				
.015					-.879	.119		
.025			-.999	.241	-.811	-.142	-.658	-.047
.050			-.708	.018	-.870	-.059	-.546	-.041
.100			-.600	-.195	-.665	-.205	-.482	-.229
.150			-.631	-.445	-.626	-.318	-.532	-.259
.250	-.473		-.607	-.536	-.588	-.387	-.569	-.422
.400	-.562		-.609	-.571	-.613	-.521	-.519	-.449
.550	-.510	-.381	-.517	-.558	-.488	-.539	-.421	-.399
.700	-.480	-.553	-.461	-.657	-.402	-.525	-.298	-.324
.850	-.477	-1.373	-.429	-.876	-.318	-.491	-.190	-.247
.950	-.541	-.955	-.428	-.677	-.294	-.385	-.140	-.140

TABLE 29 (C) CONTINUED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = .03 DEG Q = 911 N/SQ.M. (19.04 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.903		.941		.868	
.010			.372	.144				
.015					-.577	-.091		
.025			-.812	-.185	-.783	-.161	-.672	-.033
.050			-.600	-.252	-.613	-.278	-.505	-.133
.100			-.515	-.349	-.570	-.178	-.432	-.254
.150			-.593	-.472	-.553	-.418	-.461	-.349
.250	-.451		-.613	-.617	-.605	-.507	-.543	-.464
.400	-.568		-.589	-.612	-.603	-.577	-.497	-.489
.550	-.514	-.424	-.529	-.599	-.511	-.585	-.430	-.436
.700	-.474	-.595	-.465	-.725	-.415	-.553	-.301	-.346
.850	-.486	-1.421	-.434	-.926	-.321	-.519	-.207	-.255
.950	-.551	-.985	-.439	-.706	-.302	-.388	-.149	-.152

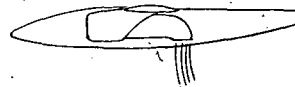
BETA = 4.00 DEG Q = 913 N/SQ.M. (19.07 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.756		.906		.865	
.010			.361	-.051				
.015					-.274	-.105		
.025			-.621	-.346	-.566	-.300	-.664	-.227
.050			-.510	-.369	-.559	-.215	-.541	-.251
.100			-.583	-.538	-.566	-.346	-.534	-.312
.150			-.595	-.590	-.576	-.396	-.464	-.402
.250	-.452		-.566	-.597	-.633	-.539	-.545	-.467
.400	-.578		-.581	-.652	-.575	-.602	-.520	-.472
.550	-.521	-.447	-.524	-.656	-.496	-.600	-.434	-.457
.700	-.490	-.634	-.472	-.754	-.427	-.568	-.301	-.358
.850	-.519	-1.452	-.441	-.949	-.326	-.539	-.209	-.271
.950	-.575	-.990	-.449	-.739	-.301	-.395	-.150	-.160

BETA = 8.02 DEG Q = 905 N/SQ.M. (18.90 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.370		.868		.864	
.010			.349	-.813				
.015					-.548	-.222		
.025			-.379	-.997	-.322	-.442	-.374	-.125
.050			-.362	-.527	-.548	-.323	-.402	-.268
.100			-.400	-.759	-.498	-.440	-.384	-.370
.150			-.491	-.628	-.499	-.538	-.463	-.423
.250	-.428		-.538	-.705	-.550	-.551	-.525	-.518
.400	-.553		-.573	-.686	-.526	-.632	-.502	-.535
.550	-.515	-.480	-.510	-.666	-.502	-.633	-.404	-.468
.700	-.502	-.682	-.459	-.791	-.428	-.605	-.317	-.377
.850	-.521	-1.529	-.448	-.973	-.327	-.547	-.198	-.279
.950	-.585	-1.056	-.454	-.766	-.304	-.404	-.140	-.164

TABLE 29 (C) CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



BETA = 12.00 DEG Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.138		.803		.813	
.010			.283	-1.163				
.015					-.198	-.635		
.025			-.070	-.919	-.302	-.607	-.456	-.401
.050			-.259	-.851	-.475	-.449	-.420	-.316
.100			-.430	-.742	-.364	-.479	-.437	-.399
.150			-.363	-.773	-.408	-.584	-.461	-.479
.250	-.378		-.482	-.637	-.491	-.569	-.475	-.521
.400	-.516		-.547	-.740	-.523	-.678	-.481	-.505
.550	-.481	-.510	-.485	-.680	-.461	-.661	-.395	-.469
.700	-.485	-.720	-.445	-.817	-.414	-.615	-.313	-.395
.850	-.510	-1.557	-.436	-1.008	-.319	-.551	-.193	-.279
.950	-.595	-1.078	-.449	-.747	-.297	-.397	-.136	-.146

TABLE 29 (D)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



BETA = -11.98 DEG      Q = 225 N/SQ.M. ( 4.69 LBF/SC.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.873		.852		.852	
.010			-1.258	.452				
.015					-.851	-.059		
.025			-1.139	.109	-1.020	-.277	-.613	-.319
.050			-.971	-.024	-.795	-.270	-.683	-.389
.100			-.823	-.193	-.774	-.438	-.641	-.466
.150			-.809	-.529	-.746	-.543	-.613	-.564
.250	-.620		-.746	-.718	-.753	-.698	-.690	-.640
.400	-.701		-.776	-.769	-.803	-.732	-.674	-.688
.550	-.664	-.711	-.667	-.759	-.674	-.766	-.579	-.654
.700	-.623	-.759	-.623	-.868	-.606	-.735	-.525	-.558
.850	-.637	-1.500	-.613	-.987	-.538	-.664	-.426	-.494
.950	-.691	-1.089	-.650	-.874	-.538	-.609	-.406	-.474

BETA = -8.01 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.832		.853			
.010			-1.040	.278				
.015					-.673	-.368		
.025			-1.235	.035	-.846	-.395	-.631	-.368
.050			-1.006	-.236	-.624	-.368	-.659	-.479
.100			-.721	-.465	-.659	-.486	-.624	-.527
.150			-.791	-.645	-.714	-.659	-.624	-.652
.250	-.645		-.763	-.861	-.784	-.828	-.694	-.697
.400	-.683		-.761	-.885	-.747	-.855	-.670	-.717
.550	-.650	-.747	-.673	-.855	-.676	-.821	-.582	-.673
.700	-.619	-.835	-.629	-.908	-.586	-.784	-.505	-.582
.850	-.646	-1.584	-.636	-1.070	-.532	-.720	-.414	-.505
.950	-.724	-1.225	-.666	-.962	-.518	-.660	-.357	-.418

BETA = -3.98 DEG      Q = 229 N/SQ.M. ( 4.79 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.724		.758		.820	
.010			-1.098	.098				
.015					-.576	-.191		
.025			-.734	-.418	-.665	-.748	-.583	-.603
.050			-.679	-.534	-.665	-.658	-.569	-.686
.100			-.658	-.754	-.631	-.686	-.672	-.693
.150			-.748	-.823	-.741	-.782	-.727	-.761
.250	-.638		-.775	-.973	-.734	-.853	-.734	-.806
.400	-.699		-.786	-.963	-.733	-.946	-.676	-.773
.550	-.666	-.763	-.696	-.923	-.669	-.899	-.589	-.696
.700	-.656	-.856	-.653	-.993	-.599	-.866	-.519	-.626
.850	-.679	-1.613	-.633	-1.106	-.539	-.776	-.433	-.586
.950	-.773	-1.229	-.683	-1.019	-.523	-.719	-.379	-.436



TABLE 29 (D) CONTINUED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



BETA = .02 DEG Q = 228 N/SQ.M. ( 4.76 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.601		.656		.801	
.010			-1.134	-.374				
.015					-.498	-.678		
.025			-.761	-.844	-.768	-.733	-.699	-.561
.050			-.706	-.955	-.616	-.644	-.623	-.637
.100			-.678	-.775	-.678	-.727	-.630	-.651
.150			-.678	-.941	-.692	-.844	-.637	-.803
.250	-.630		-.699	-1.018	-.761	-.948	-.733	-.840
.400	-.720		-.757	-1.082	-.787	-.998	-.730	-.844
.550	-.686	-.854	-.710	-1.018	-.700	-.991	-.619	-.780
.700	-.680	-.948	-.676	-1.068	-.613	-.924	-.535	-.683
.850	-.710	-1.651	-.653	-1.169	-.576	-.850	-.465	-.582
.950	-.814	-1.333	-.700	-1.085	-.542	-.720	-.411	-.428

BETA = 4.00 DEG Q = 229 N/SQ.M. ( 4.79 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.091		.696		.738	
.010			-1.188	-1.050				
.015					-.459	-.899		
.025			-.548	-1.215	-.445	-.768	-.603	-.837
.050			-.562	-1.057	-.645	-.872	-.562	-.858
.100			-.583	-.961	-.631	-.810	-.590	-.741
.150			-.645	-1.009	-.645	-.934	-.693	-.837
.250	-.665		-.741	-1.158	-.720	-1.012	-.713	-.915
.400	-.728		-.758	-1.128	-.795	-1.068	-.715	-.888
.550	-.708	-.902	-.708	-1.058	-.731	-1.035	-.651	-.801
.700	-.705	-.955	-.681	-1.128	-.658	-.975	-.568	-.725
.850	-.731	-1.715	-.688	-1.235	-.588	-.902	-.488	-.611
.950	-.818	-1.265	-.705	-1.128	-.575	-.721	-.421	-.455

BETA = 8.01 DEG Q = 225 N/SQ.M. ( 4.70 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.660		.033		.676	
.010			-1.220	-1.857				
.015					-.212	-1.024		
.025			-.212	-1.514	-.408	-1.262	-.569	-1.010
.050			-.485	-1.388	-.373	-1.038	-.569	-.968
.100			-.520	-1.339	-.583	-.996	-.520	-.947
.150			-.632	-1.374	-.597	-1.150	-.709	-.905
.250	-.646		-.688	-1.241	-.688	-1.183	-.765	-.980
.400	-.725		-.742	-1.187	-.729	-1.149	-.742	-.987
.550	-.712	-.970	-.708	-1.136	-.688	-1.105	-.630	-.878
.700	-.712	-1.034	-.685	-1.193	-.641	-1.051	-.569	-.800
.850	-.763	-1.695	-.691	-1.271	-.593	-.939	-.515	-.658
.950	-.858	-1.309	-.729	-1.054	-.586	-.729	-.454	-.505

TABLE 29 (D) Concluded  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES



BETA = 12.01 DEG

Q = 226 N/SQ.M. ( 4.71 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.309		-.157		.535	
.010			-1.274	-2.322				
.015					-.031	-1.609		
.025			-.052	-1.931	-.240	-1.589	-.317	-1.232
.050			-.317	-1.742	-.373	-1.190	-.457	-1.009
.100			-.443	-1.414	-.478	-1.239	-.527	-.953
.150			-.569	-1.463	-.597	-1.197	-.583	-.988
.250	-.604		-.639	-1.311	-.673	-1.189	-.653	-1.040
.400	-.732		-.715	-1.226	-.725	-1.209	-.701	-1.023
.550	-.705	-1.006	-.701	-1.165	-.681	-1.155	-.623	-.931
.700	-.715	-1.094	-.677	-1.209	-.644	-1.043	-.556	-.833
.850	-.765	-1.741	-.688	-1.304	-.596	-.955	-.495	-.664
.950	-.874	-1.253	-.715	-1.019	-.583	-.738	-.440	-.525

TABLE 30 (A):  
PRESSURE PROFILE ON WING  
LIFT/JET ALONE



ALPHA = .00 DEG      Q = 693 N/SQ.M. (14.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .099

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.55		.18		.66		.93	
.010	.35	-.75	-.96	-.58				
.015					.14	-.87		
.025	.009	-.705	-.091	-.665	-.082	-.696	-.016	-.471
.050	-.050	-.596	.022	-.587	-.068	-.466	-.112	-.428
.100	-.189	-.534	-.155	-.509	-.171	-.441	-.191	-.396
.150	-.207	-.507	-.198	-.505	-.184	-.489	-.159	-.423
.250	-.257	-.520	-.230	-.434	-.241	-.442	-.250	-.403
.400	-.232	-.387	-.270	-.439	-.225	-.366	-.263	-.344
.550	-.157	-.338	-.182	-.304	-1.206	-.302	-.189	-.289
.700	-.093	-.180	-.123	-.174	-.116	-.180	-.124	-.163
.850	-.022	-.061	-.019	-.072	-.002	-.076	-.015	-.063
.950	.050	.035	.038	.029	.056	.025	.035	.036

ALPHA = -.01 DEG      Q = 1545 N/SQ.M. (32.36 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .148

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.86		.22		.73		.91	
.010	.25	-.60	.09	-.57				
.015					.06	-.58		
.025	-.099	-.708	-.122	-.663	-.336	-.478	-.225	-.396
.050	-.163	-.521	-.112	-.464	-.082	-.444	-.242	-.411
.100	-.158	-.401	-.146	-.470	-.173	-.407	-.169	-.308
.150	-.268	-.545	-.219	-.485	-.271	-.451	-.257	-.392
.250	-.305	-.513	-.238	-.487	-.265	-.484	-.290	-.362
.400	-.290	-.427	-.270	-.456	-.276	-.418	-.289	-.365
.550	-.187	-.350	-.192	-.335	-.092	-.282	-.207	-.266
.700	-.110	-.196	-.112	-.198	-.124	-.181	-.117	-.160
.850	-.041	-.075	-.030	-.074	-.009	-.071	-.019	-.053
.950	.040	.034	.036	.036	.040	.030	.036	.040

ALPHA = -.00 DEG      Q = 2746 N/SQ.M. (57.36 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.79		.35		.82		.98	
.010	.14	-.27	.49	-.17				
.015					.02	-.20		
.025	-.414	-.595	-.143	-.390	-.188	-.419	-.274	-.240
.050	-.202	-.316	-.221	-.456	-.184	-.363	-.251	-.290
.100	-.229	-.350	-.230	-.380	-.227	-.325	-.198	-.255
.150	-.273	-.450	-.265	-.432	-.260	-.373	-.255	-.324
.250	-.312	-.486	-.295	-.425	-.310	-.433	-.338	-.358
.400	-.284	-.427	-.315	-.432	-.317	-.386	-.301	-.347
.550	-.204	-.318	-.204	-.307	.275	-.292	-.218	-.260
.700	-.128	-.178	-.109	-.170	-.114	-.175	-.109	-.153
.850	-.045	-.060	-.037	-.069	-.025	-.059	-.025	-.056
.950	.039	.033	.022	.031	.035	.027	.033	.045

TABLE 30 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALCNE



ALPHA = 0.00 DEG C = 1272 N/SQ.M. (26.57 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .205

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.82		.48		.89		.97	
.010	.14	-.39	-.02	-.34				
.015					-.13	-.49		
.025	-.376	-.658	-.221	-.669	-.138	-.489	-.304	-.490
.050	-.132	-.291	-.117	-.341	-.216	-.213	-.252	-.220
.100	-.216	-.422	-.187	-.366	-.199	-.308	-.211	-.294
.150	-.291	-.419	-.278	-.427	-.244	-.385	-.274	-.260
.250	-.310	-.450	-.302	-.433	-.292	-.389	-.289	-.317
.400	-.261	-.399	-.299	-.395	-.279	-.379	-.293	-.320
.550	-.186	-.330	-.189	-.289	-.646	-.278	-.195	-.223
.700	-.115	-.177	-.112	-.161	-.124	-.152	-.120	-.143
.850	-.031	-.053	-.020	-.059	-.001	-.056	-.001	-.040
.950	.046	.038	.041	.055	.051	.044	.056	.065

ALPHA = -.00 DEG C = 2844 N/SQ.M. (59.39 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .315

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	.89		.73		.96		.96	
.010	-.08	-.04	.45	-.10				
.015					-.05	-.33		
.025	-.457	-.423	-.239	-.333	-.130	-.229	-.296	-.260
.050	-.218	-.243	-.269	-.226	-.309	-.225	-.196	-.192
.100	-.251	-.320	-.271	-.287	-.251	-.289	-.226	-.309
.150	-.298	-.406	-.261	-.255	-.276	-.326	-.259	-.333
.250	-.304	-.449	-.301	-.292	-.318	-.353	-.321	-.355
.400	-.296	-.434	-.309	-.426	-.312	-.358	-.305	-.321
.550	-.212	-.323	-.230	-.307	.015	-.266	-.216	-.246
.700	-.129	-.178	-.117	-.170	-.121	-.148	-.101	-.140
.850	-.045	-.067	-.043	-.059	-.015	-.054	-.012	-.044
.950	.037	.038	.031	.047	.043	.041	.043	.055

TABLE 30 (B)  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 10.02 DEG C = 695 N/SQ.M. (14.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.14		.09		-.50		-1.69	
.010	-2.94	.93	-.62	.95				
.015					-2.57	.88		
.025	-2.341	.742	-2.313	.751	-2.347	.783	-2.477	.790
.050	-1.361	.549	-1.463	.515	-1.436	.547	-1.255	.622
.100	-.987	.264	-.981	.323	-1.062	.427	-.987	.386
.150	-.865	.146	-.903	.153	-.928	.166	-.879	.171
.250	-.647	.033	-.704	.022	-.718	.049	-.688	.030
.400	-.508	-.127	-.538	-.061	-.547	-.050	-.514	-.059
.550	-.323	-.099	-.343	-.077	-1.553	-.050	-.338	-.059
.700	-.173	-.048	-.187	-.032	-.163	-.032	-.182	-.041
.850	-.047	.005	-.061	.012	-.049	-.010	-.072	.002
.950	.041	.045	.031	.055	.030	.035	.013	.036

ALPHA = 10.00 DEG C = 1552 N/SQ.M. (32.41 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .150

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.14		.02		-1.24		-2.31	
.010	-3.38	.97	.26	.54				
.015					-3.73	.94		
.025	-2.506	.799	-2.653	.771	-2.959	.786	-2.526	.834
.050	-1.460	.577	-1.528	.580	-1.578	.607	-1.662	.639
.100	-1.148	.335	-1.103	.322	-1.148	.401	-1.128	.400
.150	-.945	.134	-.951	.208	-.997	.216	-.943	.245
.250	-.738	-.007	-.772	.033	-.755	.044	-.770	.100
.400	-.553	-.112	-.582	-.085	-.567	-.061	-.560	-.046
.550	-.374	-.138	-.385	-.095	-.199	-.076	-.371	-.072
.700	-.218	-.070	-.220	-.039	-.226	-.043	-.210	-.040
.850	-.065	-.016	-.085	-.019	-.077	-.014	-.084	-.009
.950	.021	.029	.014	.042	.011	.027	.003	.036

ALPHA = 10.01 DEG C = 2753 N/SQ.M. (57.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .199

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.43		-.27		-1.84		-2.69	
.010	-3.60	.96	.56	.54				
.015					-3.50	.97		
.025	-2.163	.852	-2.805	.836	-2.856	.863	-2.346	.875
.050	-1.564	.637	-1.756	.641	-1.780	.678	-1.672	.709
.100	-1.200	.372	-1.200	.396	-1.213	.490	-1.168	.407
.150	-.986	.216	-1.104	.261	-1.034	.338	-1.003	.270
.250	-.751	.068	-.823	.067	-.838	.111	-.840	.090
.400	-.571	-.071	-.626	-.035	-.623	-.030	-.587	-.036
.550	-.374	-.081	-.412	-.079	-.204	-.050	-.394	-.056
.700	-.219	-.033	-.237	-.037	-.233	-.025	-.225	-.028
.850	-.077	-.011	-.093	-.008	-.074	-.002	-.090	-.007
.950	.029	.033	.009	.040	.023	.027	.001	.029

TABLE 30 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



ALPHA = 9.75 DEG      Q = 1270 N/SQ.M. (26.52 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .206

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-1.16		-.21		-1.35		-2.66	
.010	-3.26	.98	.07	.96				
.015					-2.99	.96		
.025	-2.787	.804	-2.985	.649	-2.876	.840	-2.628	.849
.050	-1.478	.599	-1.507	.606	-1.558	.651	-1.599	.680
.100	-1.045	.346	-1.144	.378	-1.091	.443	-1.127	.409
.150	-.912	.210	-.953	.200	-.990	.281	-.910	.254
.250	-.701	.010	-.750	.091	-.743	.088	-.743	.103
.400	-.531	-.083	-.564	-.075	-.581	-.040	-.537	-.017
.550	-.346	-.100	-.368	-.077	-.770	-.037	-.349	-.054
.700	-.198	-.035	-.202	-.029	-.208	-.019	-.195	-.032
.850	-.062	-.001	-.066	.000	-.059	.012	-.070	-.005
.950	.039	.046	.034	.048	.029	.052	.013	.034

ALPHA = 10.31 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .316

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000	-2.05		-.34		-1.92		-2.97	
.010	-3.58	.95	.34	.93				
.015					-3.57	.98		
.025	-3.237	.895	-2.748	.667	-2.712	.866	-2.314	.872
.050	-1.638	.684	-1.776	.700	-1.756	.708	-1.767	.704
.100	-1.230	.444	-1.260	.451	-1.302	.465	-1.204	.485
.150	-1.006	.289	-1.054	.300	-1.078	.298	-.979	.294
.250	-.771	.077	-.833	.126	-.828	.127	-.805	.137
.400	-.587	-.066	-.632	-.039	-.627	.004	-.583	-.006
.550	-.380	-.085	-.395	-.056	-.094	-.028	-.384	-.049
.700	-.219	-.049	-.223	-.034	-.227	-.020	-.213	-.032
.850	-.075	-.013	-.081	-.009	-.077	.003	-.081	-.005
.950	.028	.036	.018	.042	.020	.030	.006	.028

TABLE 31 (A)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = .01 DEG      C = 231 N/SQ.M. ( 4.82 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .099

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-3.924		-2.462		.666	
.010			-.605	-4.129				
.015					1.103	-2.961		
.025			.857	-3.289	.912	-2.708	.543	-1.028
.050			.604	-2.531	.666	-1.725	.454	-.666
.100			.406	-2.346	.406	-1.417	.317	-.489
.150			.283	-2.620	.290	-1.479	.242	-.461
.250	.153		.147	-2.588	.160	-1.376	.126	-.459
.400	.100		.057	-3.415	.067	-1.254	.087	-.360
.550	.130	-2.313	.117	-2.137	.057	-.959	.134	-.244
.700	.157	-.495	.124	-1.095	.117	-.636	.183	-.115
.850	.183	-.022	.100	-.436	.140	-.280	.230	.067
.950	.173	.137	.044	-.188	.100	-.058	.239	.180

ALPHA = .01 DEG      C = 510 N/SQ.M. (10.65 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .148

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.723		-.892		.917	
.010			.076	-2.750				
.015					.744	-2.107		
.025			.450	-2.094	.351	-1.634	.190	-.743
.050			.187	-1.813	.299	-1.250	.085	-.666
.100			.076	-1.748	.153	-1.130	-.008	-.508
.150			-.026	-1.583	-.023	-1.241	-.038	-.496
.250	-.103		-.125	-2.088	-.168	-1.231	-.153	-.516
.400	-.143		-.153	-2.491	-.158	-1.192	-.180	-.450
.550	-.104	-3.703	-.111	-2.088	-.110	-.962	-.089	-.391
.700	-.044	-1.797	-.080	-1.234	-.074	-.693	-.017	-.236
.850	-.015	-.243	-.077	-.642	-.032	-.414	.024	-.081
.950	-.005	-.058	-.093	-.305	-.026	-.170	.076	.037

ALPHA = 0.00 DEG      C = 911 N/SQ.M. (19.02 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.081		.045		.971	
.010			.370	-2.045				
.015					.464	-1.527		
.025			.153	-1.782	.294	-1.514	.059	-.661
.050			.087	-1.527	.040	-1.143	.014	-.543
.100			-.043	-1.436	-.015	-.975	-.078	-.417
.150			-.123	-1.610	-.074	-.956	-.116	-.493
.250	-.166		-.207	-1.766	-.211	-1.045	-.226	-.514
.400	-.241		-.254	-2.064	-.235	-1.082	-.209	-.459
.550	-.163	-3.030	-.189	-1.836	-.180	-.915	-.152	-.370
.700	-.117	-2.592	-.148	-1.231	-.140	-.677	-.106	-.234
.850	-.084	-.758	-.137	-.723	-.087	-.408	.003	-.090
.950	-.103	-.278	-.157	-.382	-.062	-.155	.048	.028

TABLE 31 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = .01 DEG C = 2032 N/SQ.M. (42.43 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.195		.743		.970	
.010			.556	-1.284				
.015					.240	-1.042		
.025			-.052	-1.314	.024	-.996	-.167	-.477
.050			-.065	-1.009	-.042	-.745	-.069	-.330
.100			-.245	-1.059	-.218	-.745	-.179	-.378
.150			-.256	-1.205	-.242	-.778	-.206	-.451
.250	-.232		-.330	-1.240	-.276	-.878	-.306	-.487
.400	-.303		-.325	-1.485	-.321	-.861	-.296	-.428
.550	-.234	-1.889	-.256	-1.410	-.245	-.761	-.208	-.341
.700	-.182	-1.502	-.206	-1.134	-.190	-.567	-.118	-.214
.850	-.189	-1.686	-.163	-.732	-.067	-.350	-.028	-.094
.950	-.256	-1.048	-.176	-.376	-.073	-.157	.020	.021

ALPHA = .02 DEG C = 2846 N/SQ.M. (55.44 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .396

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.095		.615		.995	
.010			.723	-.769				
.015					.122	-.774		
.025			-.198	-.836	-.105	-.749	-.177	-.335
.050			-.153	-.827	-.164	-.568	-.217	-.364
.100			-.221	-.921	-.247	-.504	-.226	-.322
.150			-.327	-.548	-.250	-.658	-.256	-.400
.250	-.256		-.331	-1.048	-.366	-.707	-.313	-.406
.400	-.321		-.354	-1.119	-.308	-.705	-.311	-.385
.550	-.260	-1.326	-.261	-1.043	-.255	-.607	-.239	-.302
.700	-.199	-1.319	-.184	-.849	-.166	-.422	-.110	-.190
.850	-.200	-1.312	-.155	-.584	-.069	-.267	-.027	-.075
.950	-.321	-1.073	-.141	-.283	-.035	-.100	.029	.031

ALPHA = .03 DEG C = 2849 N/SQ.M. (55.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .521

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.308		.655		.998	
.010			.726	-.558				
.015					.032	-.721		
.025			-.212	-.742	-.084	-.655	-.162	-.360
.050			-.241	-.575	-.195	-.440	-.208	-.311
.100			-.217	-.670	-.202	-.463	-.212	-.323
.150			-.300	-.831	-.271	-.521	-.244	-.355
.250	-.253		-.345	-.867	-.317	-.596	-.290	-.378
.400	-.316		-.325	-.907	-.335	-.600	-.302	-.354
.550	-.245	-1.016	-.249	-.818	-.231	-.488	-.218	-.272
.700	-.186	-1.017	-.157	-.663	-.138	-.343	-.097	-.164
.850	-.183	-.999	-.112	-.454	-.047	-.198	-.013	-.056
.950	-.279	-.929	-.083	-.188	-.002	-.048	.046	.050



TABLE 31 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.04 DEG      C = 233 N/SQ.M. ( 4.87 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .100

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010								
.015								
.025								
.050								
.100								
.150								
.250								
.400								
.550								
.700								
.850								
.950								

ALPHA = 10.05 DEG      C = 514 N/SQ.M. (10.73 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .148

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010								
.015								
.025								
.050								
.100								
.150								
.250								
.400								
.550								
.700								
.850								
.950								

ALPHA = 10.04 DEG      C = 908 N/SQ.M. (18.96 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .197

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010								
.015								
.025								
.050								
.100								
.150								
.250								
.400								
.550								
.700								
.850								
.950								

TABLE 31 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.00 DEG

C = 2037 N/SQ.M. (142.55 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.549		-.430		-2.439	
.010			.839					
.015					-2.936	.966		
.025			-2.272	.604	-2.504	.760	-2.392	.907
.050			-1.447	.231	-1.590	.515	-1.591	.718
.100			-.983	-.027	-1.142	.200	-1.145	.450
.150			-.886	-.322	-.987	-.039	-.943	.256
.250	-.449		-.693	-.750	-.753	-.284	-.745	.073
.400	-.461		-.556	-1.282	-.607	-.499	-.548	-.046
.550	-.330	-2.000	-.383	-1.288	-.405	-.505	-.354	-.071
.700	-.224	-2.007	-.262	-1.007	-.244	-.421	-.185	-.051
.850	-.163	-1.029	-.178	-.631	-.119	-.266	-.057	-.003
.950	-.161	-.457	-.158	-.317	-.045	-.123	.036	.055

ALPHA = 10.03 DEG

C = 2841 N/SQ.M. (155.35 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .391

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.517		-1.150		-3.106	
.010			.893					
.015					-3.048	1.005		
.025			-2.581	.756	-3.053	.855	-2.363	.956
.050			-1.436	.533	-1.631	.635	-1.631	.721
.100			-1.018	.186	-1.132	.315	-1.200	.494
.150			-.879	-.113	-1.006	.130	-.899	.352
.250	-.428		-.694	-.506	-.756	-.133	-.755	.133
.400	-.430		-.545	-.895	-.566	-.331	-.539	.028
.550	-.305	-1.299	-.351	-.607	-.371	-.335	-.328	-.029
.700	-.203	-1.335	-.225	-.725	-.216	-.282	-.161	.009
.850	-.150	-1.227	-.120	-.485	-.072	-.162	-.028	.042
.950	-.187	-.629	-.088	-.212	.011	-.026	.067	.088

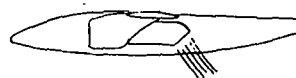
ALPHA = 9.97 DEG

C = 2843 N/SQ.M. (155.39 LBF/SQ.FT.)

EFFECT. VELOC. RATIO = .517

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.340		-.983		-2.842	
.010			.895					
.015					-3.028			
.025			-2.532	.658	-2.944	.930	-2.254	.989
.050			-1.481	.673	-1.681	.732	-1.554	.778
.100			-.957	.311	-1.114	.445	-1.054	.552
.150			-.844	.042	-.900	.271	-.883	.366
.250	-.357		-.649	-.288	-.713	.035	-.683	.185
.400	-.371		-.487	-.641	-.518	-.161	-.485	.055
.550	-.246	-.977	-.291	-.648	-.307	-.186	-.274	.037
.700	-.144	-.985	-.155	-.501	-.143	-.122	-.108	.062
.850	-.083	-.969	-.047	-.212	.004	-.038	.022	.096
.950	-.089	-.487	.014	-.089	.091	.057	.116	.139

TABLE 32 (A)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 0.00 DEG      U = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .097

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.201		.311		.463	
.010			-4.038	-1.074				
.015					-.264	-1.039		
.025			-.638	-.991	-.409	-1.109	-.409	-.908
.050			-.556	-1.019	-.631	-.762	-.555	-.769
.100			-.596	-1.039	-.562	-.859	-.562	-.755
.150			-.679	-1.088	-.624	-.880	-.652	-.790
.250	-.679		-.749	-1.029	-.745	-.872	-.742	-.825
.400	-.737		-.744	-.972	-.727	-.915	-.724	-.811
.550	-.704	-.828	-.724	-.888	-.684	-.852	-.637	-.734
.700	-.697	-.892	-.684	-.939	-.647	-.784	-.576	-.657
.850	-.714	-1.509	-.670	-1.040	-.583	-.724	-.516	-.570
.950	-.791	-1.154	-.680	-.919	-.549	-.617	-.442	-.455

ALPHA = .01 DEG      U = 512 N/SQ.M. (10.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .146

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.321		.691		.749	
.010			-1.299	-.452				
.015					-.246	-.403		
.025			-.369	-.778	-.464	-.704	-.461	-.554
.050			-.452	-.640	-.418	-.378	-.437	-.477
.100			-.467	-.652	-.520	-.478	-.532	-.403
.150			-.566	-.674	-.554	-.575	-.492	-.443
.250	-.463		-.615	-.749	-.557	-.646	-.550	-.600
.400	-.573		-.588	-.674	-.588	-.610	-.570	-.546
.550	-.519	-.541	-.522	-.591	-.512	-.564	-.483	-.504
.700	-.497	-.577	-.473	-.639	-.449	-.522	-.400	-.422
.850	-.489	-1.143	-.441	-.755	-.352	-.453	-.277	-.312
.950	-.521	-.804	-.416	-.579	-.295	-.341	-.224	-.215

ALPHA = .01 DEG      U = 908 N/SQ.M. (18.96 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.455		.719		.827	
.010			-.319	-.072				
.015					-.327	-.251		
.025			-.511	-.667	-.464	-.614	-.364	-.201
.050			-.433	-.517	-.378	-.421	-.385	-.295
.100			-.422	-.576	-.430	-.428	-.378	-.369
.150			-.468	-.629	-.465	-.489	-.418	-.406
.250	-.424		-.560	-.645	-.518	-.555	-.513	-.491
.400	-.523		-.540	-.605	-.517	-.530	-.467	-.481
.550	-.469	-.422	-.463	-.490	-.443	-.484	-.378	-.403
.700	-.423	-.481	-.412	-.522	-.365	-.423	-.293	-.310
.850	-.411	-1.079	-.355	-.660	-.261	-.351	-.194	-.219
.950	-.446	-.710	-.335	-.480	-.215	-.247	-.125	-.114

TABLE 32 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = -.01 DEG Q = 2041 N/SQ.M. (42.63 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.668		.864		.900	
.010			.394	-.057				
.015					-.395	-.398		
.025			-.416	-.588	-.683	-.452	-.396	-.271
.050			-.439	-.402	-.420	-.288	-.354	-.288
.100			-.403	-.475	-.395	-.342	-.395	-.281
.150			-.466	-.531	-.385	-.430	-.392	-.375
.250	-.393		-.472	-.542	-.481	-.459	-.459	-.424
.400	-.465		-.490	-.488	-.465	-.463	-.429	-.393
.550	-.410	-.351	-.416	-.405	-.395	-.406	-.347	-.330
.700	-.363	-.381	-.325	-.407	-.291	-.320	-.222	-.242
.850	-.342	-.662	-.280	-.524	-.206	-.262	-.136	-.149
.950	-.356	-.547	-.253	-.371	-.152	-.165	-.069	-.053

ALPHA = .01 DEG Q = 2850 N/SQ.M. (59.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .391

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.617		.916		.921	
.010			.549	.082				
.015					-.300	-.416		
.025			-.617	-.489	-.564	-.171	-.378	-.150
.050			-.400	-.233	-.418	-.320	-.419	-.220
.100			-.366	-.422	-.368	-.301	-.338	-.272
.150			-.421	-.565	-.421	-.385	-.366	-.373
.250	-.345		-.453	-.530	-.435	-.408	-.444	-.360
.400	-.428		-.465	-.464	-.465	-.421	-.392	-.373
.550	-.363	-.307	-.374	-.352	-.355	-.344	-.316	-.302
.700	-.319	-.315	-.294	-.335	-.252	-.269	-.182	-.197
.850	-.283	-.752	-.250	-.449	-.161	-.204	-.096	-.109
.950	-.284	-.438	-.206	-.303	-.103	-.111	-.033	-.016

ALPHA = .00 DEG Q = 2837 N/SQ.M. (59.26 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .510

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.648		.867		.907	
.010			.567	-.300				
.015					-.245	-.342		
.025			-.476	-.550	-.446	-.317	-.400	-.263
.050			-.427	-.448	-.291	-.273	-.350	-.176
.100			-.362	-.459	-.467	-.316	-.380	-.291
.150			-.452	-.518	-.385	-.353	-.365	-.302
.250	-.344		-.438	-.495	-.407	-.438	-.420	-.378
.400	-.422		-.442	-.404	-.425	-.355	-.395	-.348
.550	-.347	-.294	-.357	-.217	-.339	-.332	-.301	-.292
.700	-.295	-.280	-.260	-.311	-.225	-.245	-.175	-.186
.850	-.251	-.639	-.206	-.382	-.134	-.175	-.088	-.101
.950	-.241	-.358	-.164	-.252	-.075	-.083	-.024	-.004

TABLE 32 (B)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.00 DEG      C = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.104		-1.976		-3.174	
.010			-1.845	.406				
.015					-3.922	.441		
.025			-3.562	.351	-3.466	.344	-3.438	.364
.050			-1.976	.136	-2.108	.171	-1.956	.136
.100			-1.595	-.155	-1.692	-.058	-1.623	-.093
.150			-1.388	-.252	-1.547	-.217	-1.492	-.252
.250	-1.000		-1.221	-.475	-1.318	-.432	-1.284	-.442
.400	-1.022		-1.123	-.697	-1.123	-.610	-1.090	-.566
.550	-.945	-.888	-.982	-.757	-.972	-.683	-.906	-.606
.700	-.881	-1.086	-.895	-.668	-.855	-.727	-.767	-.606
.850	-.881	-1.714	-.931	-1.066	-.747	-.727	-.653	-.583
.950	-.952	-1.405	-.834	-.935	-.663	-.660	-.583	-.549

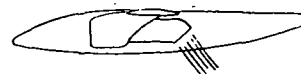
ALPHA = 10.02 DEG      C = 513 N/SQ.M. (10.72 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .146

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.822		-2.544		-3.597	
.010			-.321	.572				
.015					-4.465	.710		
.025			-3.588	.667	-3.564	.646	-2.983	.643
.050			-2.139	.495	-2.234	.477	-1.998	.440
.100			-1.476	.259	-1.651	.238	-1.605	.201
.150			-1.341	.041	-1.398	.026	-1.359	.017
.250	-.825		-1.159	-.210	-1.245	-.142	-1.166	-.160
.400	-.841		-.977	-.393	-1.001	-.316	-.920	-.292
.550	-.751	-.509	-.782	-.434	-.789	-.423	-.721	-.350
.700	-.664	-.670	-.672	-.569	-.636	-.442	-.548	-.349
.850	-.626	-1.341	-.596	-.813	-.509	-.465	-.428	-.343
.950	-.652	-1.036	-.570	-.703	-.442	-.420	-.344	-.310

ALPHA = 10.01 DEG      C = 906 N/SQ.M. (18.93 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .195

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.041		-2.973		-3.588	
.010			.127	.655				
.015					-5.179	.821		
.025			-2.962	.756	-3.228	.785	-2.773	.775
.050			-2.008	.588	-2.290	.610	-1.982	.586
.100			-1.474	.349	-1.533	.376	-1.497	.348
.150			-1.292	.134	-1.448	.203	-1.372	.169
.250	-.742		-1.036	-.061	-1.140	-.005	-1.128	-.054
.400	-.765		-.878	-.269	-.907	-.232	-.837	-.192
.550	-.676	-.381	-.705	-.228	-.710	-.276	-.633	-.217
.700	-.585	-.535	-.575	-.457	-.550	-.326	-.461	-.237
.850	-.542	-1.217	-.504	-.713	-.420	-.361	-.327	-.238
.950	-.564	-.566	-.458	-.607	-.339	-.325	-.239	-.205

TABLE 32 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.00 DEG C = 2040 N/SQ.M. (42.60 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .292

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.890		-2.499		-4.021	
.010			.231	.756				
.015					-4.964	.914		
.025			-2.911	.850	-3.302	.885	-2.878	.855
.050			-1.941	.689	-2.239	.732	-2.052	.678
.100			-1.378	.475	-1.591	.453	-1.484	.418
.150			-1.213	.292	-1.354	.312	-1.216	.228
.250	-.682		-.581	.042	-1.048	.102	-1.002	.072
.400	-.645		-.805	-.143	-.843	-.071	-.758	-.073
.550	-.573	-.247	-.612	-.187	-.611	-.152	-.528	-.138
.700	-.481	-.412	-.470	-.303	-.439	-.197	-.366	-.143
.850	-.423	-1.032	-.383	-.539	-.300	-.228	-.226	-.134
.950	-.420	-.816	-.330	-.435	-.212	-.205	-.135	-.098

ALPHA = 10.05 DEG C = 2846 N/SQ.M. (59.43 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .390

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.956		-3.192		-4.196	
.010			.321	.857				
.015					-4.608	.940		
.025			-3.248	.901	-3.220	.914	-2.976	.870
.050			-1.945	.727	-2.123	.718	-1.990	.708
.100			-1.343	.507	-1.528	.542	-1.420	.449
.150			-1.204	.321	-1.273	.341	-1.181	.281
.250	-.632		-.958	.075	-1.032	.125	-.984	.095
.400	-.649		-.767	-.084	-.794	-.028	-.709	-.043
.550	-.529	-.180	-.568	-.117	-.565	-.103	-.511	-.097
.700	-.429	-.353	-.425	-.219	-.395	-.127	-.329	-.092
.850	-.361	-.891	-.316	-.442	-.240	-.158	-.184	-.090
.950	-.344	-.705	-.255	-.354	-.155	-.140	-.094	-.060

ALPHA = 10.01 DEG C = 2844 N/SQ.M. (59.39 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .515

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.942		-2.997		-4.219	
.010			.189	.853				
.015					-4.609	.928		
.025			-2.730	.917	-3.048	.908	-2.935	.885
.050			-1.909	.751	-2.089	.737	-1.968	.698
.100			-1.333	.500	-1.464	.519	-1.358	.496
.150			-1.145	.305	-1.229	.332	-1.165	.316
.250	-.612		-.903	.119	-.958	.143	-.933	.085
.400	-.616		-.720	-.076	-.756	-.018	-.697	-.044
.550	-.488	-.183	-.529	-.099	-.521	-.082	-.480	-.076
.700	-.386	-.296	-.384	-.169	-.356	-.092	-.302	-.087
.850	-.318	-.785	-.271	-.368	-.205	-.119	-.167	-.070
.950	-.290	-.600	-.206	-.284	-.117	-.097	-.076	-.043

TABLE 33 (A)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -.02 DEG C = 230 N/SQ.M. ( 4.79 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-3.155		-2.056		.320	
.010			.182	-3.423				
.015					1.027	-2.894		
.025			.649	-2.818	.842	-2.818	.629	-1.637
.050			.430	-2.207	.560	-1.939	.430	-1.205
.100			.224	-1.878	.368	-1.651	.320	-.868
.150			.141	-1.671	.203	-1.610	.176	-.896
.250	.038		.031	-1.653	.045	-1.534	.038	-.798
.400	-.089		-.082	-1.653	-.066	-1.424	-.046	-.731
.550	-.072	-3.128	-.066	-1.886	-.049	-1.161	.001	-.558
.700	-.069	-3.744	-.076	-1.836	-.036	-.944	.051	-.359
.850	-.176	-2.931	-.142	-1.214	-.022	-.468	.091	-.142
.950	-.468	-2.406	-.269	-.748	-.075	-.275	.117	.011

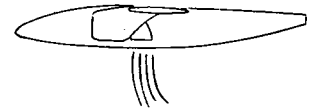
ALPHA = -.04 DEG C = 512 N/SQ.M. (10.69 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .151

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.232		-.826		.748	
.010			.360	-1.953				
.015					.622	-2.397		
.025			.148	-2.560	.376	-1.931	.197	-1.124
.050			.052	-1.787	.123	-1.667	.129	-.869
.100			-.037	-1.630	.028	-1.389	-.049	-.749
.150			-.130	-1.737	-.096	-1.442	-.117	-.801
.250	-.176		-.222	-1.831	-.231	-1.515	-.179	-.825
.400	-.282		-.298	-2.205	-.271	-1.539	-.235	-.713
.550	-.250	-4.196	-.252	-2.466	-.235	-1.388	-.177	-.592
.700	-.225	-4.656	-.237	-2.351	-.198	-1.085	-.116	-.437
.850	-.305	-3.606	-.267	-1.525	-.159	-.737	-.050	-.234
.950	-.582	-2.742	-.353	-.877	-.182	-.391	-.010	-.073

ALPHA = -.04 DEG C = 912 N/SQ.M. (19.05 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.547		.387		.978	
.010			.461	-1.243				
.015					.183	-1.580		
.025			-.051	-1.445	-.033	-1.544	-.103	-.609
.050			-.170	-1.145	-.054	-1.271	-.096	-.574
.100			-.218	-1.262	-.194	-1.088	-.211	-.571
.150			-.303	-1.478	-.244	-1.200	-.248	-.645
.250	-.260		-.351	-1.524	-.370	-1.281	-.336	-.675
.400	-.374		-.413	-1.759	-.355	-1.297	-.298	-.614
.550	-.324	-3.255	-.317	-2.027	-.298	-1.191	-.245	-.510
.700	-.285	-3.784	-.289	-1.520	-.252	-.938	-.176	-.383
.850	-.357	-3.024	-.305	-1.345	-.188	-.649	-.076	-.207
.950	-.613	-2.321	-.360	-.747	-.178	-.360	-.030	-.066

TABLE 33 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -.01 DEG C = 2040 N/SQ.M. (42.61 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.659		.955		.966	
.010			.750	-.099				
.015					-.284	-.486		
.025			-.574	-.764	-.535	-.585	-.512	-.172
.050			-.479	-.753	-.511	-.557	-.498	-.336
.100			-.423	-.855	-.410	-.629	-.355	-.271
.150			-.510	-1.083	-.480	-.744	-.419	-.403
.250	-.362		-.493	-1.225	-.454	-.884	-.477	-.457
.400	-.466		-.521	-1.305	-.487	-.976	-.420	-.505
.550	-.413	-1.602	-.411	-1.253	-.392	-.877	-.321	-.422
.700	-.385	-1.556	-.327	-1.130	-.281	-.714	-.205	-.306
.850	-.403	-1.552	-.313	-.877	-.203	-.500	-.113	-.193
.950	-.610	-1.447	-.304	-.517	-.175	-.291	-.057	-.070

ALPHA = -.02 DEG C = 2847 N/SQ.M. (59.46 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .405

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.933		.956		.937	
.010			.855	.312				
.015					-.704	-.010		
.025			-.755	-.247	-.780	-.218	-.566	.038
.050			-.645	-.362	-.555	-.220	-.506	-.167
.100			-.477	-.495	-.458	-.364	-.417	-.173
.150			-.549	-.711	-.516	-.507	-.451	-.319
.250	-.380		-.513	-.513	-.519	-.658	-.469	-.379
.400	-.469		-.503	-.565	-.510	-.768	-.421	-.414
.550	-.422	-.592	-.399	-.905	-.385	-.688	-.312	-.353
.700	-.383	-1.074	-.333	-.806	-.287	-.567	-.193	-.262
.850	-.424	-1.158	-.300	-.686	-.193	-.406	-.097	-.161
.950	-.573	-1.093	-.278	-.426	-.140	-.239	-.035	-.045

ALPHA = -.09 DEG C = 2849 N/SQ.M. (59.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .529

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.981		.955		.913	
.010			.874	.539				
.015					-.693	.036		
.025			-.726	-.161	-.684	-.075	-.576	-.023
.050			-.656	-.178	-.569	-.163	-.534	-.141
.100			-.501	-.417	-.517	-.182	-.434	-.195
.150			-.516	-.557	-.526	-.456	-.342	-.266
.250	-.360		-.456	-.755	-.470	-.554	-.488	-.337
.400	-.445		-.481	-.826	-.471	-.643	-.394	-.369
.550	-.385	-.787	-.388	-.750	-.366	-.594	-.301	-.337
.700	-.343	-.826	-.303	-.685	-.261	-.482	-.165	-.229
.850	-.349	-.807	-.256	-.573	-.163	-.342	-.083	-.133
.950	-.452	-.812	-.224	-.231	-.115	-.188	-.015	-.023



TABLE 33 (B)  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.00 DEG      Q = 228 N/SQ.M. ( 4.75 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.230		1.433		1.371	
.010			1.717	.138				
.015					-.070	-.457		
.025			-.180	-.270	-.139	-.409	-.492	.332
.050			-.125	-.340	-.187	-.312	-.326	.166
.100			-.076	-.811	-.104	-.527	-.160	.021
.150			-.104	-.859	-.146	-.707	-.111	-.083
.250	.076		-.083	-1.237	-.111	-.917	-.139	-.196
.400	.026		-.078	-2.018	-.078	-1.136	-.078	-.259
.550	.097	-5.550	.039	-2.488	.019	-.971	.046	-.199
.700	.113	-5.412	.113	-2.220	.113	-.837	.211	-.071
.850	.100	-3.684	.097	-1.240	.184	-.357	.308	.060
.950	-.108	-1.955	.006	-.454	.174	-.038	.338	.285

ALPHA = 10.01 DEG      Q = 510 N/SQ.M. (10.65 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .151

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			1.237		1.011		-.036	
.010			1.394	.841				
.015					-1.677	.495		
.025			-1.458	.180	-1.467	.103	-1.523	.683
.050			-1.025	-.163	-1.062	-.064	-1.359	.486
.100			-.688	-.589	-.747	-.416	-.800	.183
.150			-.642	-.793	-.738	-.661	-.707	-.030
.250	-.293		-.552	-1.339	-.589	-.966	-.593	-.225
.400	-.346		-.448	-2.017	-.472	-1.188	-.434	-.331
.550	-.238	-5.465	-.301	-2.431	-.334	-1.156	-.259	-.316
.700	-.168	-5.372	-.220	-2.152	-.210	-.963	-.121	-.244
.850	-.190	-3.581	-.219	-1.349	-.120	-.608	-.006	-.121
.950	-.340	-1.453	-.273	-.695	-.103	-.307	.054	-.014

ALPHA = 10.04 DEG      Q = 913 N/SQ.M. (19.06 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .203

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.865		.160		-2.166	
.010								
.015					-2.819	.869		
.025			-2.065	.550	-2.372	.543	-2.529	.861
.050			-1.357	.189	-1.507	.295	-1.564	.628
.100			-.984	-.210	-1.130	-.037	-1.108	.332
.150			-.895	-.547	-.987	-.379	-.961	.135
.250	-.743		-.733	-.557	-.802	-.682	-.773	-.087
.400	-.467		-.576	-1.664	-.623	-.915	-.575	-.241
.550	-.358	-3.455	-.422	-1.828	-.437	-.930	-.378	-.255
.700	-.270	-2.953	-.312	-1.652	-.302	-.798	-.218	-.216
.850	-.245	-2.280	-.254	-1.074	-.180	-.539	-.056	-.133
.950	-.403	-1.284	-.277	-.525	-.143	-.290	-.017	-.042

TABLE 33 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.18 DEG      Q = 2029 N/SQ.M. (42.39 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .302

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.757		-3.238		-4.354	
.010			.829	.990				
.015					-5.117			
.025			-3.351	.953	-3.559	.943	-3.072	.985
.050			-2.201	.690	-2.407	.717	-2.073	.761
.100			-1.448	.276	-1.655	.334	-1.533	.467
.150			-1.257	-.098	-1.371	.104	-1.233	.268
.250	-.625		-.978	-.591	-1.063	-.253	-1.005	.021
.400	-.649		-.777	-1.044	-.835	-.585	-.745	-.138
.550	-.535	-1.437	-.585	-1.103	-.591	-.677	-.505	-.211
.700	-.428	-1.447	-.446	-1.038	-.425	-.620	-.337	-.193
.850	-.414	-1.363	-.357	-.810	-.284	-.510	-.194	-.162
.950	-.452	-1.045	-.309	-.497	-.220	-.324	-.103	-.098

ALPHA = 10.23 DEG      Q = 2847 N/SQ.M. (59.45 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .409

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.631		-3.440		-4.510	
.010			.696	.862				
.015					-4.510			
.025			-3.467		-4.091		-3.121	.975
.050			-2.283	.817	-2.539	.839	-2.354	.799
.100			-1.622	.508	-1.706	.508	-1.610	.545
.150			-1.306	.212	-1.487	.258	-1.306	.327
.250	-.652		-1.040	-.288	-1.105	-.095	-1.014	.123
.400	-.672		-.803	-.785	-.863	-.418	-.771	-.087
.550	-.561	-1.041	-.597	-.883	-.612	-.521	-.519	-.168
.700	-.459	-1.004	-.448	-.802	-.416	-.528	-.341	-.161
.850	-.418	-.735	-.343	-.677	-.276	-.448	-.196	-.139
.950	-.437	-.731	-.293	-.449	-.206	-.317	-.093	-.088

ALPHA = 10.15 DEG      Q = 2839 N/SQ.M. (59.29 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .536

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.006		-.480		-1.596	
.010			.654					
.015					-1.480			
.025			-1.480	.572	-1.236	.903	-1.614	.889
.050			-1.077	.770	-1.146	.703	-1.938	.696
.100			-1.427	.464	-1.380	.442	-1.595	.450
.150			-1.462	.190	-1.195	.221	-1.600	.273
.250	-.714		-1.289	-.237	-1.302	-.060	-1.230	.062
.400	-.759		-1.078	-.654	-.972	-.344	-.761	-.103
.550	-.537	-.695	-.666	-.741	-.603	-.448	-.579	-.167
.700	-.444	-.741	-.490	-.658	-.605	-.462	-.463	-.179
.850	-.398	-.792	-.374	-.595	-.354	-.418	-.273	-.177
.950	-.405	-.646	-.421	-.446	-.357	-.364	-.225	-.154

TABLE 34 (A)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.01 DEG      Q = 228 N/SQ.M. ( 4.76 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.538		-1.434		.239	
.010			-2.602	-3.202				
.015					.550	-3.273		
.025			.066	-2.671	.351	-2.664	.211	-1.538
.050			-.003	-1.994	-.024	-1.938	.004	-1.330
.100			-.183	-1.952	-.127	-1.759	-.155	-1.150
.150			-.314	-2.049	-.217	-1.800	-.238	-1.130
.250	-.411		-.452	-1.585	-.432	-1.648	-.390	-1.115
.400	-.508		-.512	-2.271	-.495	-1.537	-.448	-.971
.550	-.495	-5.555	-.525	-2.643	-.458	-1.266	-.388	-.847
.700	-.495	-4.362	-.522	-1.969	-.455	-.843	-.351	-.636
.850	-.569	-3.209	-.652	-1.279	-.528	-.388	-.284	-.435
.950	-.676	-1.527	-.585	-.571	-.639	-.066	-.244	-.317

ALPHA = .00 DEG      Q = 514 N/SQ.M. (10.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .152

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.771		-.455		.819	
.010			-.755	-2.122				
.015					.182	-2.073		
.025			-.351	-2.119	.087	-2.021	-.262	-1.047
.050			-.244	-1.625	-.137	-1.647	-.391	-.762
.100			-.385	-1.592	-.422	-1.457	-.363	-.857
.150			-.474	-1.504	-.426	-1.622	-.391	-.860
.250	-.474		-.532	-2.065	-.511	-1.579	-.443	-.830
.400	-.559		-.616	-2.408	-.605	-1.505	-.497	-.813
.550	-.531	-5.632	-.562	-2.457	-.552	-1.250	-.427	-.714
.700	-.503	-5.047	-.548	-1.971	-.537	-.795	-.354	-.568
.850	-.542	-2.629	-.586	-1.124	-.562	-.228	-.297	-.378
.950	-.660	-1.165	-.622	-.637	-.657	.009	-.234	-.242

ALPHA = .01 DEG      Q = 910 N/SQ.M. (19.00 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.187		.608		.911	
.010			-.206	-.707				
.015					-.094	-1.205		
.025			-.350	-1.235	-.360	-.904	-.599	-.591
.050			-.495	-1.088	-.409	-1.093	-.397	-.485
.100			-.473	-1.280	-.430	-1.088	-.494	-.533
.150			-.573	-1.434	-.495	-1.148	-.485	-.682
.250	-.471		-.587	-1.575	-.591	-1.214	-.532	-.718
.400	-.580		-.616	-1.460	-.565	-1.198	-.516	-.656
.550	-.532	-4.139	-.567	-2.007	-.520	-.988	-.451	-.579
.700	-.506	-3.782	-.542	-1.461	-.516	-.573	-.373	-.450
.850	-.522	-2.122	-.548	-.725	-.517	-.096	-.255	-.313
.950	-.618	-1.052	-.565	-.381	-.601	.167	-.201	-.187

TABLE 34 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.01 DEG      Q = 2039 N/SQ.M. (42.58 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .303

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.737		.917		.832	
.010			.458	-.160				
.015					-.687	-.421		
.025			-.798	-.573	-.807	-.185	-.458	-.068
.050			-.692	-.608	-.676	-.492	-.538	-.151
.100			-.694	-.743	-.697	-.568	-.553	-.273
.150			-.620	-.557	-.657	-.665	-.594	-.381
.250	-.491		-.635	-1.082	-.654	-.819	-.591	-.501
.400	-.600		-.649	-1.354	-.652	-.800	-.526	-.489
.550	-.536	-2.082	-.559	-1.266	-.560	-.633	-.429	-.410
.700	-.448	-1.817	-.515	-.685	-.506	-.313	-.319	-.317
.850	-.506	-1.561	-.498	-.369	-.463	.101	-.231	-.234
.950	-.514	-1.075	-.494	-.079	-.528	.339	-.154	-.131

ALPHA = .00 DEG      Q = 2842 N/SQ.M. (59.37 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .404

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.927		.850		.644	
.010			.620	.299				
.015					-1.075	-.035		
.025			-.933	-.321	-.578	-.143	-.686	.001
.050			-.870	-.238	-.775	-.163	-.650	-.122
.100			-.651	-.458	-.700	-.246	-.510	-.149
.150			-.729	-.755	-.648	-.501	-.609	-.290
.250	-.487		-.679	-.654	-.676	-.595	-.603	-.368
.400	-.623		-.635	-.583	-.645	-.620	-.533	-.422
.550	-.536	-1.337	-.553	-.516	-.535	-.468	-.427	-.339
.700	-.488	-1.338	-.496	-.608	-.452	-.177	-.294	-.262
.850	-.463	-1.142	-.466	-.139	-.458	.201	-.206	-.185
.950	-.514	-1.004	-.451	.080	-.469	.411	-.131	-.098

ALPHA = .00 DEG      Q = 2845 N/SQ.M. (59.42 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .530

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.941		.867		.723	
.010			.637	.484				
.015					-1.054	.310		
.025			-.960	.076	-1.209	.037	-.971	.060
.050			-.867	-.083	-.828	-.058	-.554	-.022
.100			-.656	-.235	-.705	-.182	-.638	-.122
.150			-.755	-.507	-.681	-.328	-.571	-.252
.250	-.485		-.681	-.675	-.654	-.477	-.607	-.391
.400	-.580		-.642	-.770	-.676	-.505	-.524	-.358
.550	-.528	-.578	-.542	-.705	-.546	-.369	-.421	-.330
.700	-.478	-1.024	-.490	-.450	-.485	-.094	-.302	-.249
.850	-.470	-.948	-.451	-.044	-.445	.258	-.202	-.180
.950	-.486	-.588	-.432	.214	-.461	.447	-.126	-.096

TABLE 34 (B)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.00 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .101

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.293		.349		-.311	
.010			-1.395	-.513				
.015					-1.492	-.846		
.025			-1.694	-1.228	-1.750	-1.319	-2.007	-.513
.050			-1.485	1.131	-1.652	-1.194	-1.569	-.735
.100			-1.319	-1.624	-1.458	-1.472	-1.423	-.902
.150			-1.347	-2.021	-1.355	-1.673	-1.388	-1.013
.250	-1.117		-1.284	-2.402	-1.374	-1.792	-1.360	-1.236
.400	-1.162		-1.247	-3.072	-1.307	-1.964	-1.253	-1.253
.550	-1.088	-7.542	-1.149	-3.359	-1.186	-1.755	-1.078	-1.179
.700	-1.041	-8.088	-1.088	-2.520	-1.122	-1.344	-.954	-1.071
.850	-1.031	-2.584	-1.068	-1.587	-1.061	-.782	-.849	-.984
.950	-1.052	-1.381	-1.115	-1.152	-1.102	-.522	-.795	-.839

ALPHA = 10.01 DEG      Q = 512 N/SQ.M. (10.70 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .152

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.639		.218		-1.514	
.010			-.099	.448				
.015					-2.584	.136		
.025			-2.251	-.124	-2.387	-.114	-2.636	.331
.050			-1.803	-.468	-1.913	-.391	-1.882	.085
.100			-1.320	-.889	-1.477	-.674	-1.510	-.210
.150			-1.280	-1.206	-1.320	-.597	-1.304	-.450
.250	-.965		-1.188	-1.719	-1.181	-1.235	-1.181	-.628
.400	-.984		-1.075	-2.473	-1.103	-1.401	-1.008	-.714
.550	-.886	-6.398	-.926	-2.551	-.954	-1.285	-.835	-.731
.700	-.811	-5.237	-.851	-1.987	-.855	-.911	-.689	-.661
.850	-.793	-1.758	-.822	-1.048	-.808	-.404	-.574	-.571
.950	-.817	-.965	-.632	-.656	-.848	-.130	-.501	-.509

ALPHA = 10.00 DEG      Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .202

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.086		-.888		-3.133	
.010			.177					
.015					-3.265	.622		
.025			-2.904	.421	-3.118	.418	-3.277	.640
.050			-1.819	.036	-2.140	.159	-2.088	.392
.100			-1.514	-.368	-1.685	-.227	-1.613	.099
.150			-1.372	-.713	-1.465	-.500	-1.436	-.085
.250	-.841		-1.174	-1.213	-1.256	-.788	-1.186	-.317
.400	-.965		-1.016	-1.829	-1.094	-.958	-.983	-.456
.550	-.804	-4.020	-.857	-1.888	-.910	-.877	-.760	-.480
.700	-.726	-3.193	-.751	-1.392	-.780	-.602	-.601	-.465
.850	-.672	-1.408	-.702	-.623	-.707	-.133	-.469	-.407
.950	-.675	-.617	-.656	-.249	-.733	.106	-.373	-.353

TABLE 34 (B) - CONCLUDED  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 10.00 DEG      Q = 2037 N/SQ.M. (42.55 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .303

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		UPPER	CP		UPPER	CP		UPPER	CP		UPPER
	UPPER	LOWER		UPPER	LOWER		UPPER	LOWER		UPPER	LOWER	
.000				-1.128			-3.664			-5.406		
.010				.346	.776							
.015							-5.467	.884				
.025				-3.894	.845		-4.103	.863		-3.467	.855	
.050				-2.541	.580		-2.652	.575		-2.507	.640	
.100				-1.702	.193		-1.913	.265		-1.762	.404	
.150				-1.516	-.162		-1.640	.013		-1.477	.162	
.250	-.872			-1.240	-.646		-1.337	-.317		-1.227	-.041	
.400	-.902			-1.065	-1.113		-1.116	-.541		-.953	-.229	
.550	-.775	-1.740		-.844	-1.121		-.878	-.437		-.724	-.292	
.700	-.678	-1.765		-.721	-.791		-.743	-.291		-.545	-.284	
.850	-.634	-1.265		-.657	-.287		-.655	.108		-.393	-.280	
.950	-.636	-.645		-.628	-.659		-.637	.333		-.292	-.244	

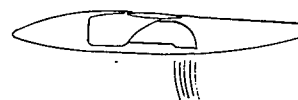
ALPHA = 10.03 DEG      Q = 2843 N/SQ.M. (59.38 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .406

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		UPPER	CP		UPPER	CP		UPPER	CP		UPPER
	UPPER	LOWER		UPPER	LOWER		UPPER	LOWER		UPPER	LOWER	
.000				-.274			-.940			-2.018		
.010				.443	.868							
.015							-1.630	.907				
.025				-1.977	.659		-1.791	.810		-2.090	.802	
.050				-1.999	.668		-1.488	.635		-1.984	.609	
.100				-2.042	.325		-1.830	.335		-2.043	.366	
.150				-1.729	.054		-1.745	.116		-1.804	.182	
.250	-1.064			-1.726	-.404		-1.655	-.137		-1.544	-.024	
.400	-.958			-1.146	-.757		-1.423	-.354		-1.034	-.183	
.550	-.787	-1.192		-1.017	-.788		-1.069	-.344		-.808	-.235	
.700	-.671	-1.234		-.711	-.522		-.848	-.121		-.619	-.245	
.850	-.576	-.920		-.638	-.113		-.736	.235		-.472	-.257	
.950	-.523	-.462		-.572	.155		-.645	.436		-.351	-.252	

ALPHA = 10.00 DEG      Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .532

X/C	ETA = .250			ETA = .387			ETA = .524			ETA = .800		
	CP		UPPER	CP		UPPER	CP		UPPER	CP		UPPER
	UPPER	LOWER		UPPER	LOWER		UPPER	LOWER		UPPER	LOWER	
.000				-.276			-.740			-1.739		
.010				.393	.860							
.015							-1.486	.902				
.025				-1.713	.670		-1.495	.823		-1.907	.794	
.050				-1.605	.687		-1.626	.621		-1.807	.612	
.100				-1.868	.392		-1.716	.371		-1.774	.380	
.150				-1.539	.101		-1.576	.171		-1.860	.216	
.250	-1.026			-1.558	-.207		-1.510	-.093		-1.626	.008	
.400	-1.009			-1.427	-.643		-1.418	-.280		-1.133	-.147	
.550	-.817	-.527		-1.062	-.654		-1.065	-.252		-.845	-.207	
.700	-.727	-.930		-.783	-.417		-.912	-.059		-.690	-.215	
.850	-.553	-.652		-.626	-.036		-.772	.280		-.486	-.228	
.950	-.500	-.392		-.558	.217		-.647	.470		-.340	-.238	

TABLE 35 (A)  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG C = 228 N/SQ.M. (4.75 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.797		.555		.650	
.010			-2.881					
.015								
.025			-.672	-1.011	-.388	-.755	-.561	-.534
.050			-.741	-.852	-.455	-.908	-.631	-.693
.100			-.610	-.915	-.658	-.790	-.638	-.721
.150			-.707	-.998	-.693	-.845	-.679	-.825
.250	-.658		-.728	-1.101	-.693	-.866	-.693	-.876
.400	-.752		-.765	-1.071	-.776	-.953	-.682	-.883
.550	-.712	-.886	-.725	-1.031	-.772	-1.017	-.638	-.823
.700	-.695	-.960	-.688	-1.074	-.705	-1.004	-.574	-.755
.850	-.732	-1.628	-.692	-1.178	-.661	-.937	-.507	-.651
.950	-.809	-1.272	-.759	-1.068	-.601	-.853	-.440	-.500
					-.551	-.722		

ALPHA = .02 DEG C = 510 N/SQ.M. (10.65 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .147

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.651		.824		.796	
.010			-.776					
.015								
.025			-.754	-.257	-.504	-.161	-.692	-.217
.050			-.671	-.458	-.640	-.482	-.665	-.368
.100			-.634	-.603	-.739	-.439	-.640	-.343
.150			-.637	-.649	-.628	-.507	-.563	-.516
.250	-.560		-.668	-.762	-.637	-.522	-.600	-.572
.400	-.639		-.681	-.812	-.665	-.632	-.572	-.590
.550	-.604	-.601	-.601	-.775	-.657	-.747	-.572	-.590
.700	-.583	-.770	-.601	-.775	-.595	-.744	-.487	-.571
.850	-.604	-1.538	-.571	-.881	-.526	-.711	-.421	-.500
.950	-.680	-1.158	-.551	-1.069	-.421	-.654	-.307	-.397
			-.556	-.505	-.357	-.530	-.261	-.276

ALPHA = 0.00 DEG C = 908 N/SQ.M. (18.96 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.841		.868		.751	
.010			.006	.258				
.015								
.025			-.642	-.225	-.634	-.028	-.651	-.103
.050			-.610	-.303	-.757	-.127	-.599	-.266
.100			-.617	-.461	-.735	-.221	-.539	-.280
.150			-.620	-.565	-.580	-.358	-.533	-.389
.250	-.466		-.608	-.610	-.615	-.374	-.533	-.389
.400	-.593		-.646	-.644	-.596	-.495	-.575	-.463
.550	-.551	-.448	-.646	-.644	-.600	-.595	-.562	-.489
.700	-.512	-.633	-.551	-.640	-.521	-.589	-.435	-.447
.850	-.523	-1.425	-.490	-.739	-.445	-.574	-.321	-.375
.950	-.585	-1.000	-.464	-.948	-.352	-.530	-.232	-.286
			-.462	-.725	-.327	-.415	-.167	-.177

TABLE 35 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG      Q = 2033 N/SQ.M. (42.45 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .293

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.905		.919		.853	
.010			.814	.128				
.015					-.666	-.062		
.025			-.781	-.094	-.912	-.064	-.780	-.045
.050			-.587	-.202	-.595	-.137	-.554	-.080
.100			-.528	-.270	-.617	-.234	-.563	-.184
.150			-.577	-.350	-.570	-.241	-.491	-.244
.250	-.430		-.567	-.463	-.551	-.390	-.517	-.359
.400	-.518		-.565	-.451	-.548	-.421	-.468	-.356
.550	-.462	-.262	-.468	-.434	-.451	-.424	-.379	-.336
.700	-.414	-.382	-.397	-.521	-.348	-.431	-.257	-.259
.850	-.406	-.1070	-.360	-.702	-.257	-.371	-.156	-.179
.950	-.430	-.704	-.337	-.514	-.215	-.271	-.090	-.084

ALPHA = 0.00 DEG      Q = 2840 N/SQ.M. (59.31 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .395

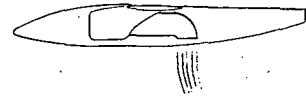
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.864		.943		.827	
.010			.732	.256				
.015					-.766	-.207		
.025			-.715	-.166	-.832	-.123	-.637	.013
.050			-.574	-.127	-.588	-.103	-.532	-.128
.100			-.528	-.243	-.502	-.170	-.435	-.122
.150			-.531	-.218	-.556	-.273	-.476	-.254
.250	-.392		-.527	-.346	-.513	-.318	-.475	-.314
.400	-.467		-.504	-.354	-.495	-.367	-.432	-.333
.550	-.412	-.173	-.416	-.324	-.399	-.325	-.337	-.280
.700	-.361	-.268	-.344	-.389	-.290	-.338	-.212	-.206
.850	-.341	-.852	-.291	-.547	-.208	-.273	-.124	-.128
.950	-.336	-.481	-.261	-.400	-.150	-.187	-.054	-.036

ALPHA = -.02 DEG      Q = 2847 N/SQ.M. (59.47 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .516

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.812		.947		.794	
.010			.728	.210				
.015					-.442	-.090		
.025			-.618	-.115	-.821	-.105	-.646	.120
.050			-.566	-.123	-.528	-.055	-.433	-.111
.100			-.511	-.245	-.457	-.079	-.452	-.165
.150			-.502	-.320	-.478	-.215	-.444	-.262
.250	-.371		-.486	-.306	-.465	-.294	-.454	-.323
.400	-.454		-.495	-.312	-.472	-.327	-.421	-.307
.550	-.387	-.128	-.390	-.260	-.372	-.284	-.319	-.260
.700	-.331	-.176	-.215	-.257	-.255	-.246	-.184	-.180
.850	-.290	-.688	-.249	-.441	-.163	-.199	-.100	-.097
.950	-.268	-.364	-.206	-.339	-.104	-.123	-.028	-.012



TABLE 35 (B)  
PRESSURE PROFILE ON WING  
WAKE NOZZLES DEFLECTED 90 DEGREES



ALPHA = 10.00 DEG Q = 226 N/SQ.M. ( 4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010			-.121		-1.090		-2.548	
.015			-1.007	.588				
.025			-3.217	.834	-3.426	.925	-3.105	.799
.050			-1.725	.611	-1.543	.583	-1.557	.569
.100			-1.174	.318	-1.306	.346	-1.216	.304
.150			-1.027	.081	-1.104	.151	-1.062	.109
.250	-.560		-.867	-.202	-.944	-.168	-.895	-.107
.400	-.638		-.743	-.455	-.787	-.367	-.692	-.266
.550	-.540	-.587	-.597	-.523	-.611	-.472	-.536	-.307
.700	-.489	-.814	-.509	-.672	-.486	-.489	-.381	-.293
.850	-.506	-1.493	-.476	-.851	-.368	-.452	-.259	-.236
.950	-.607	-1.236	-.506	-.712	-.374	-.381	-.205	-.168

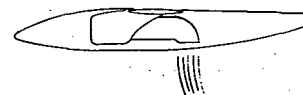
ALPHA = 9.99 DEG Q = 514 N/SQ.M. (10.73 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .148

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010			-.563		-2.804		-3.856	
.015			-.040	.890				
.025			-3.479	.570	-4.855	.975	-3.120	.884
.050			-2.206	.733	-3.566	.948	-2.117	.721
.100			-1.405	.466	-2.245	.736	-1.537	.411
.150			-1.282	.255	-1.736	.473	-1.256	.212
.250	-.693		-1.034	-.096	-1.414	.249	-1.028	.015
.400	-.749		-.871	-.355	-1.052	-.019	-.807	-.169
.550	-.640	-.518	-.688	-.480	-.901	-.245	-.593	-.255
.700	-.585	-.837	-.590	-.688	-.706	-.408	-.425	-.260
.850	-.584	-1.662	-.527	-.593	-.551	-.490	-.303	-.246
.950	-.664	-1.317	-.532	-.822	-.443	-.458	-.231	-.202

ALPHA = 9.99 DEG Q = 909 N/SQ.M. (18.98 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000								
.010			-1.434		-3.702		-5.105	
.015			.268	.761				
.025			-3.265	.581	-5.415	.965	-3.102	.924
.050			-2.168	.815	-3.947	.936	-2.220	.718
.100			-1.559	.575	-2.540	.811	-1.556	.497
.150			-1.254	.245	-1.694	.572	-1.290	.300
.250	-.716		-1.080	.042	-1.441	.334	-1.113	.073
.400	-.754		-.875	-.264	-1.158	.094	-.823	-.125
.550	-.649	-.369	-.659	-.366	-.945	-.189	-.607	-.210
.700	-.575	-.664	-.580	-.601	-.709	-.329	-.420	-.206
.850	-.555	-1.566	-.505	-.524	-.543	-.393	-.289	-.206
.950	-.555	-1.197	-.487	-.770	-.420	-.447	-.201	-.164

TABLE 35 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 9.98 DEG      Q = 2031 N/SQ.M. (42.41 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.291		-.878		-1.880	
.010			.333	.516				
.015					-1.374	.973		
.025			-1.817	.547	-1.638	.904	-1.654	.867
.050			-1.747	.802	-1.519	.738	-1.862	.688
.100			-1.973	.576	-1.671	.522	-1.680	.447
.150			-1.770	.397	-1.629	.362	-1.708	.284
.250	-.790		-1.373	.135	-1.383	.148	-1.279	.086
.400	-.733		-.907	-.086	-1.039	-.063	-.956	-.069
.550	-.605	-.089	-.635	-.189	-.757	-.180	-.574	-.150
.700	-.499	-.316	-.545	-.384	-.542	-.256	-.467	-.166
.850	-.447	-1.158	-.426	-.691	-.512	-.342	-.308	-.187
.950	-.451	-.879	-.406	-.583	-.357	-.355	-.276	-.180

ALPHA = 9.99 DEG      Q = 2848 N/SQ.M. (59.48 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .395

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.069		-.618		-1.674	
.010			.445	.946				
.015					-1.483	.973		
.025			-1.652	.543	-1.332	.895	-1.571	.859
.050			-1.672	.802	-1.376	.745	-1.388	.689
.100			-1.441	.555	-1.493	.542	-1.623	.458
.150			-1.434	.423	-1.499	.379	-1.580	.292
.250	-.777		-1.326	.175	-1.304	.186	-1.223	.127
.400	-.732		-.915	-.019	-1.076	-.006	-1.123	-.038
.550	-.560	.002	-.697	-.658	-.757	-.101	-.660	-.107
.700	-.461	-.191	-.436	-.267	-.565	-.178	-.472	-.125
.850	-.385	-.538	-.385	-.569	-.408	-.269	-.284	-.144
.950	-.339	-.698	-.341	-.463	-.355	-.257	-.256	-.183

ALPHA = 10.00 DEG      Q = 2845 N/SQ.M. (59.43 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .517

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.020		-.357		-1.460	
.010			.400	.548				
.015					-1.285	.972		
.025			-1.145	.539	-1.249	.893	-1.504	.848
.050			-1.466	.757	-1.244	.731	-1.434	.675
.100			-1.496	.588	-1.227	.542	-1.472	.460
.150			-1.676	.423	-1.342	.335	-1.458	.300
.250	-.669		-1.261	.194	-1.242	.200	-1.264	.119
.400	-.702		-.775	.023	-1.037	.035	-.823	-.025
.550	-.558	.005	-.662	-.044	-.736	-.052	-.578	-.089
.700	-.436	-.083	-.429	-.131	-.685	-.115	-.471	-.107
.850	-.347	-.754	-.494	-.449	-.355	-.205	-.292	-.118
.950	-.307	-.554	-.307	-.409	-.334	-.239	-.216	-.136

TABLE 36 (A)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = .02 DEG      Q = 227 N/SQ.M. ( 4.74 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.649		.67C		.614	
.010			-1.595	.114				
.015					-1.144	-.039		
.025			-1.074	-.310	-1.102	-.442	-1.040	-.261
.050			-.949	-.372	-1.053	-.407	-.908	-.525
.100			-.859	-.491	-.831	-.491	-.769	-.560
.150			-.901	-.609	-.928	-.567	-.782	-.588
.250	-.734		-.901	-.623	-.928	-.545	-.838	-.656
.400	-.875		-.916	-.596	-.916	-.602	-.801	-.683
.550	-.855	-.535	-.882	-.498	-.858	-.481	-.720	-.623
.700	-.855	-.515	-.872	-.350	-.872	-.296	-.616	-.582
.850	-.912	-.616	-.919	-.138	-.865	.014	-.549	-.515
.950	-1.040	-.552	-.976	.051	-1.017	.125	-.481	-.474

ALPHA = .04 DEG      Q = 512 N/SQ.M. (10.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .147

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.804		.509		.497	
.010			-.666	.691				
.015					-1.469	.358		
.025			-1.245	.192	-1.362	.232	-1.306	.066
.050			-1.125	.054	-1.186	.149	-.913	-.008
.100			-.885	-.094	-.857	.008	-.789	-.196
.150			-.913	-.269	-.943	-.177	-.774	-.303
.250	-.673		-.934	-.328	-.915	-.276	-.793	-.386
.400	-.815		-.886	-.299	-.899	-.334	-.738	-.432
.550	-.805	-.161	-.836	-.189	-.814	-.225	-.611	-.416
.700	-.811	-.129	-.811	-.112	-.812	-.091	-.478	-.368
.850	-.914	-.314	-.874	.054	-.848	.194	-.387	-.344
.950	-1.065	-.358	-.950	.211	-.986	.311	-.332	-.298

ALPHA = -.02 DEG      Q = 907 N/SQ.M. (18.95 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.864		.486		.215	
.010			-.185	.656				
.015					-1.557	.510		
.025			-1.531	.305	-1.435	.359	-1.178	.260
.050			-1.248	.164	-1.293	.197	-1.055	.008
.100			-.959	-.027	-.971	.036	-.779	-.098
.150			-.878	-.131	-.900	-.113	-.720	-.167
.250	-.662		-.848	-.104	-.871	-.150	-.760	-.272
.400	-.827		-.912	-.167	-.849	-.197	-.684	-.343
.550	-.750	-.065	-.797	-.090	-.774	-.133	-.567	-.340
.700	-.774	.018	-.776	-.004	-.749	.020	-.445	-.292
.850	-.864	-.146	-.833	.153	-.790	.268	-.361	-.258
.950	-1.064	-.201	-.877	.305	-.915	.330	-.278	-.202

TABLE 36 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = -.01 DEG C = 2035 N/SQ.M. (42.50 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .294

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.910		.572		.046	
.010			.514	.740				
.015					-1.558	.582		
.025			-1.293	.333	-1.545	.401	-1.003	.202
.050			-1.099	.260	-1.014	.236	-.867	.097
.100			-.770	.092	-.807	.110	-.703	.057
.150			-.849	.004	-.750	.071	-.700	-.116
.250	-.576		-.773	-.088	-.811	-.087	-.648	-.207
.400	-.656		-.768	-.033	-.763	-.092	-.588	-.243
.550	-.676	.092	-.704	.041	-.665	-.012	-.478	-.224
.700	-.671	.177	-.665	.130	-.633	.146	-.375	-.192
.850	-.742	.047	-.690	.272	-.640	.372	-.272	-.160
.950	-.900	.027	-.720	.422	-.719	.485	-.168	-.106

ALPHA = .01 DEG C = 2844 N/SQ.M. (59.41 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .393

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.901		.678		.169	
.010			.718	.791				
.015					-1.510	.496		
.025			-1.217	.293	-1.425	.414	-1.021	.291
.050			-.998	.244	-1.063	.246	-.827	.142
.100			-.765	.155	-.785	.136	-.640	.046
.150			-.797	-.015	-.752	.047	-.616	-.083
.250	-.536		-.731	-.017	-.716	-.017	-.612	-.170
.400	-.656		-.732	.020	-.713	-.030	-.550	-.219
.550	-.616	.147	-.647	.106	-.599	.044	-.432	-.186
.700	-.600	.240	-.605	.199	-.552	.196	-.316	-.143
.850	-.651	.140	-.598	.239	-.546	.413	-.219	-.112
.950	-.791	.123	-.606	.476	-.595	.535	-.129	-.059

ALPHA = 0.00 DEG C = 2846 N/SQ.M. (59.44 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .515

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP		CP		CP		CP	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.954		.566		.387	
.010			.776	.687				
.015					-1.092	.506		
.025			-1.132	.303	-1.434	.340	-1.125	.364
.050			-.943	.242	-.927	.216	-.749	.172
.100			-.641	.126	-.736	.151	-.645	.032
.150			-.691	-.029	-.796	.067	-.581	-.101
.250	-.511		-.695	-.043	-.664	-.033	-.577	-.162
.400	-.623		-.681	.012	-.673	-.016	-.510	-.187
.550	-.572	.140	-.584	.138	-.555	.086	-.409	-.168
.700	-.555	.255	-.533	.225	-.522	.224	-.293	-.129
.850	-.590	.191	-.523	.365	-.479	.444	-.188	-.084
.950	-.706	.167	-.509	.508	-.516	.557	-.099	-.028

TABLE 36 (B)  
PRESSURE PROFILE ON WING

PEAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



ALPHA = 9.58 DEG      C = 224 N/SQ.M. ( 4.69 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .098

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.904		-3.646		-4.432	
.010				.441				
.015					-5.752	.680		
.025			-4.267	.708	-4.299	.680	-3.814	.623
.050			-2.831	.581	-2.578	.532	-2.361	.476
.100			-1.729	.342	-2.003	.236	-1.799	.167
.150			-1.588	.153	-1.722	.111	-1.532	-.009
.250	-1.992		-1.350	-.142	-1.455	-.106	-1.336	-.242
.400	-1.675		-1.219	-.276	-1.263	-.225	-1.124	-.419
.550	-1.318	-.371	-1.093	-.256	-1.075	-.256	-.923	-.484
.700	-1.981	-.375	-1.021	-.201	-1.021	-.167	-.766	-.508
.850	-1.021	-.603	-1.032	-.140	-1.018	.078	-.651	-.514
.950	-1.363	-.623	-1.059	.112	-1.103	.187	-.548	-.511

ALPHA = 10.03 DEG      C = 514 N/SQ.M. (10.73 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .148

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.177		-1.733		-2.929	
.010				.544				
.015					-2.183	.857		
.025			-2.683	.881	-2.260	.850	-2.683	.820
.050			-2.671	.774	-2.177	.722	-2.625	.651
.100			-2.723	.627	-2.245	.522	-2.625	.412
.150			-2.585	.418	-2.312	.350	-2.530	.228
.250	-1.172		-2.318	.148	-2.153	.137	-2.153	-.007
.400	-1.209		-1.303	-.004	-1.956	-.001	-1.317	-.184
.550	-1.089	-.308	-1.147	.020	-1.434	-.023	-.961	-.277
.700	-1.016	-.063	-1.047	.044	-1.164	.039	-.771	-.314
.850	-1.065	-.362	-1.074	.090	-1.116	.271	-.597	-.362
.950	-1.164	-.345	-1.147	.276	-1.227	.329	-.497	-.387

ALPHA = 10.10 DEG      C = 904 N/SQ.M. (18.89 LBF/SQ.FT.)      EFFECT. VELOC. RATIO = .196

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.186		-1.635		-2.775	
.010				.582				
.015					-2.031	.685		
.025			-2.386	.929	-2.005	.857	-2.421	.857
.050			-2.381	.857	-1.970	.802	-2.439	.704
.100			-2.439	.671	-2.015	.601	-2.407	.476
.150			-2.397	.526	-1.972	.432	-2.379	.310
.250	-1.223		-2.285	.288	-2.076	.265	-2.167	.098
.400	-1.258		-1.872	.131	-1.852	.115	-1.755	-.057
.550	-1.138	.172	-1.312	.136	-1.615	.098	-.980	-.160
.700	-1.022	.117	-1.052	.147	-1.250	.153	-.731	-.218
.850	-1.050	-.186	-1.043	.205	-1.100	.356	-.557	-.278
.950	-1.088	-.169	-1.111	.314	-1.146	.424	-.412	-.310

TABLE 36 (B) - CONCLUDED  
PRESSURE PROFILE ON WING



REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS

ALPHA = 10.12 DEG C = 2039 N/SQ.M. (42.58 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .295

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.565		-1.373		-2.482	
.010				.655				
.015					-1.687	.927		
.025			-2.096	.568	-1.719	.946	-2.123	.888
.050			-1.961	.856	-1.674	.842	-2.155	.756
.100			-1.996	.738	-1.655	.672	-2.104	.544
.150			-1.955	.557	-1.742	.527	-2.163	.388
.250	-1.234		-2.010	.410	-1.750	.360	-2.154	.172
.400	-1.273		-1.821	.260	-1.784	.228	-1.743	.015
.550	-1.036	.336	-1.473	.271	-1.525	.205	-1.244	-.082
.700	-.930	.333	-1.235	.279	-1.255	.275	-.747	-.125
.850	-.852	.107	-.916	.371	-1.083	.462	-.489	-.177
.950	-.905	.080	-.917	.476	-1.002	.545	-.338	-.206

ALPHA = 10.02 DEG C = 2843 N/SQ.M. (59.38 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .393

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.656		-1.185		-2.211	
.010				.721				
.015					-1.507	.940		
.025			-1.695	.576	-1.501	.950	-1.971	.904
.050			-1.570	.910	-1.487	.849	-1.892	.786
.100			-1.646	.734	-1.553	.665	-1.943	.544
.150			-1.820	.632	-1.567	.531	-1.988	.379
.250	-1.143		-1.904	.453	-1.638	.399	-1.968	.216
.400	-1.209		-1.693	.306	-1.655	.274	-1.716	.044
.550	-.963	.381	-1.386	.213	-1.517	.263	-1.125	-.037
.700	-.848	.356	-1.147	.353	-1.155	.327	-.695	-.074
.850	-.766	.240	-.954	.439	-1.027	.506	-.451	-.123
.950	-.751	.187	-.867	.562	-.903	.587	-.291	-.149

ALPHA = 9.98 DEG C = 2838 N/SQ.M. (59.27 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .514

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.493		-.993		-2.022	
.010				.788				
.015					-1.374	.954		
.025			-1.456	.574	-1.391	.944	-1.817	.394
.050			-1.668	.904	-1.274	.647	-1.797	.752
.100			-1.609	.748	-1.462	.664	-1.786	.540
.150			-1.546	.611	-1.532	.550	-1.771	.384
.250	-1.122		-1.721	.443	-1.553	.406	-1.823	.209
.400	-1.194		-1.566	.235	-1.544	.281	-1.687	.062
.550	-.970	.403	-1.333	.252	-1.396	.284	-1.135	-.011
.700	-.810	.429	-.975	.386	-1.117	.351	-.751	-.043
.850	-.675	.306	-.885	.484	-.970	.534	-.429	-.091
.950	-.634	.267	-.872	.558	-.820	.607	-.260	-.123

TABLE 37 (A)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.01 DEG C = 227 N/SQ.M. (4.74 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .094

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-4.541		-4.410		-1.295	
.010			-2.197	-4.866				
.015					.945	-4.777		
.025			.578	-4.451	.786	-4.292	.647	-2.807
.050			.335	-3.002	.425	-2.648	.439	-2.343
.100			.057	-2.502	.185	-2.190	.196	-1.420
.150			-.040	-2.558	.051	-2.266	.030	-1.358
.250	-.213		-.227	-2.325	-.130	-2.015	-.158	-1.387
.400	-.304		-.311	-2.656	-.274	-1.992	-.294	-1.138
.550	-.280	-5.344	-.300	-2.789	-.274	-1.706	-.270	-.916
.700	-.290	-5.250	-.321	-2.785	-.257	-1.373	-.213	-.684
.850	-.368	-4.251	-.368	-1.834	-.314	-.916	-.196	-.472
.950	-.596	-2.395	-.569	-1.319	-.411	-.667	-.220	-.297

ALPHA = .01 DEG C = 513 N/SQ.M. (11.71 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .142

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-2.222		-1.635		.607	
.010			-.941	-3.232				
.015					.546	-3.120		
.025			.014	-2.874	.340	-2.533	.119	-1.338
.050			.073	-2.210	.119	-1.952	-.130	-1.199
.100			-.127	-2.186	-.063	-1.789	-.133	-.984
.150			-.265	-2.244	-.228	-1.722	-.228	-.960
.250	-.284		-.361	-2.296	-.336	-1.914	-.314	-.925
.400	-.391		-.421	-2.722	-.407	-1.880	-.383	-.924
.550	-.349	-5.388	-.377	-2.939	-.382	-1.686	-.318	-.765
.700	-.322	-5.408	-.373	-2.467	-.349	-1.325	-.264	-.613
.850	-.382	-3.101	-.415	-1.652	-.322	-.918	-.199	-.404
.950	-.607	-2.328	-.552	-1.103	-.358	-.566	-.164	-.252

ALPHA = .00 DEG C = 911 N/SQ.M. (19.03 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .189

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.452		-.051		.943	
.010			-.283	-1.599				
.015					.162	-1.457		
.025			-.113	-1.286	-.045	-1.391	-.127	-.639
.050			-.191	-1.269	-.292	-1.222	-.222	-.784
.100			-.282	-1.661	-.275	-1.255	-.305	-.594
.150			-.395	-1.609	-.342	-1.386	-.367	-.693
.250	-.325		-.439	-1.758	-.361	-1.361	-.413	-.773
.400	-.434		-.456	-2.050	-.440	-1.462	-.420	-.720
.550	-.389	-3.212	-.355	-2.158	-.406	-1.305	-.337	-.621
.700	-.354	-3.073	-.357	-1.834	-.336	-1.052	-.266	-.502
.850	-.408	-2.748	-.366	-1.272	-.281	-.722	-.169	-.309
.950	-.622	-1.952	-.431	-.737	-.265	-.444	-.130	-.171

TABLE 37 (A) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = .00 DEG Q = 2035 N/SQ.M. (42.51 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.729		.905		.967	
.010			.394	-.415				
.015					-.382	-.466		
.025			-.612	-.759	-.615	-.425	-.527	-.206
.050			-.537	-.664	-.500	-.585	-.561	-.186
.100			-.556	-.921	-.471	-.643	-.453	-.319
.150			-.542	-1.062	-.528	-.826	-.477	-.437
.250	-.416		-.538	-1.227	-.581	-.964	-.504	-.501
.400	-.515		-.558	-1.344	-.522	-1.051	-.462	-.544
.550	-.468	-1.582	-.463	-1.376	-.443	-.942	-.373	-.468
.700	-.434	-1.752	-.394	-1.262	-.341	-.773	-.246	-.368
.850	-.484	-1.885	-.370	-.965	-.258	-.574	-.152	-.253
.950	-.703	-1.746	-.379	-.613	-.231	-.351	-.102	-.125

ALPHA = -.01 DEG Q = 2846 N/SQ.M. (59.44 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .386

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.833		.965		.910	
.010			.599	.152				
.015					-.625	.019		
.025			-.807	-.335	-.712	-.362	-.649	-.159
.050			-.654	-.448	-.627	-.232	-.657	-.149
.100			-.526	-.675	-.548	-.502	-.464	-.268
.150			-.590	-.856	-.563	-.619	-.469	-.370
.250	-.424		-.572	-1.004	-.552	-.731	-.491	-.398
.400	-.506		-.557	-1.081	-.520	-.827	-.459	-.466
.550	-.452	-1.184	-.442	-1.069	-.416	-.765	-.346	-.411
.700	-.417	-1.302	-.379	-.934	-.322	-.638	-.227	-.317
.850	-.444	-1.316	-.341	-.787	-.230	-.458	-.140	-.211
.950	-.642	-1.407	-.328	-.489	-.184	-.284	-.074	-.092

ALPHA = .00 DEG Q = 2841 N/SQ.M. (59.33 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .523

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.989		.939		.830	
.010			.635	.325				
.015					-.745	.247		
.025			-.955	-.127	-.801	-.117	-.611	.108
.050			-.748	-.132	-.705	-.165	-.685	-.114
.100			-.571	-.474	-.616	-.236	-.478	-.151
.150			-.575	-.638	-.565	-.458	-.484	-.291
.250	-.395		-.547	-.805	-.529	-.572	-.506	-.346
.400	-.489		-.520	-.881	-.507	-.656	-.433	-.402
.550	-.429	-.915	-.441	-.837	-.395	-.624	-.339	-.356
.700	-.384	-.570	-.341	-.716	-.303	-.532	-.211	-.269
.850	-.354	-.962	-.296	-.608	-.158	-.397	-.122	-.173
.950	-.492	-.756	-.261	-.375	-.152	-.231	-.054	-.060



TABLE 37 (B)  
PRESSURE PROFILE ON WING

FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 10.02 DEG C = 227 N/SQ.M. (4.74 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .095

X/C	ETA = .250		ETA = .347		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.391		.765		.911	
.010			-.553	-.802				
.015					-.310	-1.087		
.025			-.587	-1.198	-.546	-1.177	-.768	-.365
.050			-.546	-1.350	-.511	-1.184	-.657	-.490
.100			-.407	-1.565	-.476	-1.329	-.601	-.553
.150			-.518	-1.808	-.393	-1.482	-.604	-.670
.250	-.343		-.490	-2.138	-.555	-1.771	-.615	-.826
.400	-.440		-.514	-3.113	-.540	-1.902	-.524	-.830
.550	-.352	-9.000	-.440	-3.435	-.453	-1.717	-.423	-.702
.700	-.275	-9.095	-.396	-2.982	-.382	-1.428	-.319	-.584
.850	-.258	-2.176	-.362	-1.566	-.329	-.877	-.194	-.446
.950	-.443	-1.452	-.463	-.584	-.315	-.544	-.160	-.214

ALPHA = 10.01 DEG C = 514 N/SQ.M. (10.73 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .142

X/C	ETA = .250		ETA = .347		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.948		.923		-.334	
.010			.117	.206				
.015					-1.491	-.125		
.025			-1.607	-.210	-1.534	-.233	-1.755	.325
.050			-1.163	-.558	-1.175	-.558	-1.482	.153
.100			-.865	-.679	-.963	-.730	-.991	-.169
.150			-.856	-1.222	-.845	-1.025	-.939	-.350
.250	-.546		-.748	-1.822	-.754	-1.314	-.828	-.518
.400	-.554		-.696	-2.534	-.675	-1.547	-.656	-.628
.550	-.484	-5.648	-.549	-2.639	-.530	-1.456	-.515	-.610
.700	-.469	-5.695	-.464	-2.408	-.420	-1.242	-.366	-.527
.850	-.393	-2.591	-.439	-1.471	-.338	-.867	-.262	-.411
.950	-.551	-1.510	-.491	-.549	-.340	-.537	-.209	-.282

ALPHA = 10.03 DEG C = 910 N/SQ.M. (19.60 LBF/SQ.FT.) EFFECT. VELUC. RATIO = .189

X/C	ETA = .250		ETA = .347		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.754		.135		-1.815	
.010			.355	.666				
.015					-2.522	.595		
.025			-2.231	.356	-2.328	.377	-2.698	.689
.050			-1.517	-.051	-1.677	.055	-1.550	.384
.100			-1.124	-.432	-1.351	-.244	-1.299	.152
.150			-1.067	-1.656	-1.058	-.560	-1.084	-.054
.250	-.551		-.857	-1.413	-.953	-.906	-.960	-.311
.400	-.627		-.741	-1.892	-.811	-1.099	-.743	-.428
.550	-.519	-3.201	-.571	-2.039	-.555	-1.140	-.547	-.450
.700	-.428	-3.036	-.462	-1.710	-.456	-.989	-.385	-.388
.850	-.412	-2.261	-.410	-1.155	-.345	-.710	-.268	-.314
.950	-.545	-1.401	-.419	-.700	-.312	-.475	-.195	-.221

TABLE 37 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 10.00 DEG Q = 2035 N/SQ.M. (42.50 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .282

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.572		-2.205		-4.533	
.010			.532	.953				
.015					-4.842	.980		
.025			-3.215	.867	-3.485	.851	-3.003	.904
.050			-2.214	.516	-2.370	.568	-2.200	.651
.100			-1.495	.126	-1.635	.240	-1.526	.376
.150			-1.269	-.241	-1.418	-.012	-1.293	.191
.250	-.687		-1.055	-.740	-1.119	-.384	-1.051	-.045
.400	-.718		-.841	-1.257	-.895	-.696	-.797	-.240
.550	-.591	-1.616	-.648	-1.259	-.658	-.774	-.570	-.295
.700	-.497	-1.679	-.512	-1.127	-.485	-.699	-.401	-.274
.850	-.480	-1.623	-.435	-.893	-.358	-.586	-.268	-.237
.950	-.536	-1.148	-.387	-.574	-.282	-.405	-.164	-.167

ALPHA = 10.02 DEG Q = 2846 N/SQ.M. (59.43 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .385

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.699		-3.714		-4.558	
.010			.508	.826				
.015					-4.558	.978		
.025			-3.499	.945	-3.884	.932	-3.258	.920
.050			-2.314	.764	-2.504	.728	-2.253	.736
.100			-1.586	.346	-1.885	.397	-1.530	.461
.150			-1.360	-.012	-1.464	.208	-1.282	.241
.250	-.695		-1.053	-.475	-1.162	-.201	-1.066	.020
.400	-.733		-.856	-.902	-.895	-.472	-.809	-.180
.550	-.588	-1.210	-.656	-1.052	-.643	-.620	-.568	-.232
.700	-.501	-1.251	-.501	-.939	-.474	-.588	-.394	-.211
.850	-.461	-1.053	-.395	-.768	-.335	-.505	-.251	-.194
.950	-.501	-.849	-.351	-.512	-.247	-.360	-.151	-.135

ALPHA = 10.03 DEG Q = 2846 N/SQ.M. (59.45 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .526

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.070		-.632		-1.875	
.010			.462	.960				
.015					-1.571	.954		
.025			-1.603	.910	-1.469	.842	-1.542	.833
.050			-1.633	.717	-1.326	.638	-1.775	.634
.100			-1.468	.405	-1.305	.387	-1.876	.393
.150			-1.395	.114	-1.628	.149	-1.658	.203
.250	-.792		-1.427	-.320	-1.362	-.138	-1.257	-.001
.400	-.737		-.833	-.742	-1.090	-.417	-.878	-.177
.550	-.621	-.812	-.697	-.848	-.801	-.539	-.645	-.232
.700	-.528	-.501	-.648	-.821	-.598	-.557	-.458	-.244
.850	-.485	-.900	-.395	-.707	-.421	-.492	-.294	-.236
.950	-.504	-.764	-.357	-.495	-.351	-.431	-.336	-.213

TABLE 38 (A)  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.02 DEG      C = 222 N/SQ.M. ( 4.65 LBF/SQ.FT. )      EFFECT. VELOC. RATIO = .092

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.104		-.360		.851	
.010			-2.974	-1.642				
.015					.716	-1.735		
.025			.489	-1.359	.556	-1.572	.433	-.934
.050			.284	-1.303	.312	-1.140	.270	-.523
.100			.213	-.842	.270	-.658	.220	-.438
.150			.036	-.856	.100	-.715	.128	-.488
.250	-.035		-.021	-.713	.029	-.607	-.042	-.486
.400	-.119		-.105	-.565	-.076	-.607	-.019	-.421
.550	-.098	-.350	-.067	-.497	-.047	-.407	.022	-.332
.700	-.102	-.483	-.040	-.442	-.009	-.315	.091	-.191
.850	-.143	-.795	-.050	-.486	.042	-.208	.128	-.026
.950	-.243	-.596	-.078	-.291	.073	-.064	.142	.104

ALPHA = -.02 DEG      C = 516 N/SQ.M. (10.78 LBF/SQ.FT. )      EFFECT. VELOC. RATIO = .140

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.612		.813			
.010			-.801	-.786				
.015					.166	-.551		
.025			-.130	-.670	-.133	-.590	-.200	-.392
.050			-.175	-.673	-.130	-.487	-.169	-.298
.100			-.169	-.511	-.221	-.496	-.276	-.328
.150			-.279	-.603	-.252	-.535	-.224	-.352
.250	-.230		-.301	-.731	-.294	-.573	-.282	-.436
.400	-.342		-.355	-.660	-.361	-.575	-.277	-.407
.550	-.306	-.506	-.312	-.552	-.294	-.519	-.195	-.367
.700	-.289	-.580	-.262	-.607	-.229	-.451	-.133	-.260
.850	-.306	-1.055	-.253	-.725	-.160	-.358	-.034	-.133
.950	-.377	-.704	-.252	-.488	-.112	-.198	.018	-.000

ALPHA = -.02 DEG      C = 908 N/SQ.M. (18.96 LBF/SQ.FT. )      EFFECT. VELOC. RATIO = .185

X/C	ETA = .250		ETA = .337		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.520		.973			
.010			-.094	-.119				
.015					-.320	-.268		
.025			-.351	-.553	-.233	-.389	-.358	-.122
.050			-.310	-.490	-.414	-.384	-.327	-.167
.100			-.291	-.421	-.343	-.370	-.241	-.271
.150			-.358	-.632	-.377	-.494	-.365	-.339
.250	-.291		-.405	-.696	-.360	-.498	-.349	-.408
.400	-.402		-.446	-.642	-.452	-.552	-.366	-.404
.550	-.363	-.529	-.366	-.565	-.344	-.510	-.278	-.334
.700	-.323	-.580	-.222	-.602	-.255	-.458	-.182	-.249
.850	-.355	-1.182	-.290	-.754	-.191	-.381	-.067	-.148
.950	-.432	-.816	-.302	-.539	-.163	-.244	-.022	-.032

TABLE 38 (A) - CONCLUDED  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.00 DEG      C = 2034 N/SQ.M. (142.48 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .278

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.769		.955		.986	
.010			.526	-.044				
.015					-.310	-.153		
.025			-.486	-.219	-.641	-.145	-.529	-.013
.050			-.477	-.343	-.477	-.172	-.381	-.064
.100			-.364	-.402	-.456	-.276	-.400	-.191
.150			-.455	-.524	-.444	-.318	-.419	-.281
.250	-.350		-.478	-.594	-.452	-.421	-.427	-.354
.400	-.449		-.494	-.515	-.467	-.448	-.408	-.345
.550	-.391	-.389	-.396	-.444	-.378	-.417	-.301	-.288
.700	-.352	-.476	-.222	-.521	-.282	-.375	-.179	-.216
.850	-.346	-1.032	-.298	-.674	-.188	-.317	-.087	-.122
.950	-.390	-.722	-.284	-.476	-.152	-.207	-.022	-.026

ALPHA = -.04 DEG      C = 2837 N/SQ.M. (199.26 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .379

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.913		1.002		.898	
.010			.685	.185				
.015					-.575	.043		
.025			-.657	-.136	-.595	-.161	-.598	-.034
.050			-.515	-.223	-.448	-.202	-.474	-.069
.100			-.404	-.294	-.456	-.203	-.398	-.172
.150			-.475	-.398	-.468	-.236	-.392	-.208
.250	-.347		-.484	-.475	-.450	-.364	-.431	-.292
.400	-.441		-.478	-.440	-.455	-.376	-.394	-.309
.550	-.368	-.325	-.371	-.361	-.357	-.340	-.291	-.259
.700	-.326	-.424	-.292	-.405	-.245	-.287	-.167	-.170
.850	-.300	-.658	-.249	-.554	-.159	-.247	-.077	-.089
.950	-.313	-.658	-.223	-.380	-.110	-.149	-.006	.007

ALPHA = -.13 DEG      C = 2849 N/SQ.M. (199.50 LBF/SQ.FT.)      EFFECT. VELUC. RATIO = .512

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.939		.991		.953	
.010			.704	.160				
.015					-.553	.195		
.025			-.670	-.082	-.637	-.093	-.544	.009
.050			-.462	-.058	-.521	-.038	-.453	.075
.100			-.436	-.256	-.415	-.130	-.390	-.162
.150			-.448	-.338	-.499	-.222	-.406	-.198
.250	-.337		-.439	-.376	-.471	-.272	-.431	-.262
.400	-.416		-.426	-.363	-.430	-.310	-.359	-.273
.550	-.343	-.265	-.339	-.279	-.328	-.241	-.268	-.220
.700	-.282	-.341	-.254	-.302	-.224	-.211	-.134	-.134
.850	-.256	-.704	-.210	-.442	-.121	-.162	-.045	-.055
.950	-.270	-.554	-.168	-.288	-.062	-.077	.023	.032

TABLE 38 (B)

## PRESSURE PROFILE ON WING

HEAD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.97 DEG. C = 226 N/SQ.M. (4.72 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .093

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000					.712		-.041	
.010			-.313					
.015					-1.658			
.025			-1.198	.631	-1.631	.775	-1.359	.914
.050			-.940	.614	-.940	.517	-.933	.733
.100			-.445	.287	-.599	.426	-.571	.426
.150			-.445	.202	-.473	.217	-.522	.287
.250	-.067		-.334	-.144	-.410	.012	-.383	.073
.400	-.154		-.245	-.178	-.292	-.036	-.225	.035
.550	-.083	-.140	-.120	-.161	-.130	-.147	-.083	.066
.700	-.035	-.276	-.039	-.221	-.022	-.100	.062	.089
.850	-.039	-.749	-.002	-.279	.056	-.015	.154	.154
.950	-.086	-.502	-.039	-.235	.100	.002	.201	.201

ALPHA = 9.99 DEG. C = 510 N/SQ.M. (10.65 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .139

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.407		-.928		-2.156	
.010			.314					
.015					-2.879			
.025			-2.622	.873	-2.460	.889	-2.446	.954
.050			-1.537	.611	-1.621	.623	-1.531	.710
.100			-1.061	.364	-1.170	.345	-1.188	.407
.150			-.907	.113	-1.030	.129	-.932	.224
.250	-.477		-.746	-.143	-.823	-.055	-.814	.032
.400	-.524		-.659	-.272	-.677	-.242	-.576	-.094
.550	-.443	-.450	-.477	-.375	-.486	-.313	-.393	-.161
.700	-.378	-.624	-.384	-.465	-.354	-.342	-.230	-.127
.850	-.359	-1.281	-.333	-.741	-.241	-.307	-.121	-.083
.950	-.428	-.582	-.310	-.565	-.193	-.251	-.047	-.032

ALPHA = 9.99 DEG. C = 908 N/SQ.M. (18.96 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .186

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.444		-1.805		-3.620	
.010			.454					
.015					-4.140			
.025			-3.224	.521	-3.500	.949	-2.816	.973
.050			-1.826	.713	-1.836	.713	-1.869	.725
.100			-1.262	.407	-1.439	.470	-1.328	.480
.150			-1.086	.232	-1.231	.251	-1.073	.277
.250	-.589		-.916	-.071	-.963	-.035	-.944	.059
.400	-.640		-.749	-.314	-.771	-.206	-.677	-.093
.550	-.536	-.475	-.575	-.357	-.578	-.293	-.475	-.169
.700	-.458	-.691	-.457	-.505	-.420	-.341	-.304	-.146
.850	-.455	-1.341	-.387	-.777	-.303	-.345	-.175	-.116
.950	-.516	-1.107	-.370	-.603	-.235	-.275	-.090	-.068

TABLE 38 (B) - CONCLUDED  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.99 DEG C = 2039 N/SQ.M. (42.58 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .279

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.093		-3.037		-4.462	
.010			.556	.847				
.015					-4.806	1.012		
.025			-3.069	1.003	-3.656	1.003	-3.112	.988
.050			-2.126	.819	-2.355	.825	-2.129	.784
.100			-1.448	.571	-1.621	.570	-1.493	.533
.150			-1.269	.377	-1.335	.378	-1.203	.354
.250	-.638		-.977	.090	-1.065	.166	-.985	.141
.400	-.676		-.789	-.136	-.825	-.067	-.730	-.024
.550	-.556	-.285	-.593	-.221	-.603	-.184	-.502	-.102
.700	-.477	-.511	-.462	-.375	-.432	-.234	-.324	-.095
.850	-.440	-1.142	-.372	-.660	-.286	-.270	-.181	-.089
.950	-.463	-.955	-.337	-.511	-.213	-.215	-.094	-.055

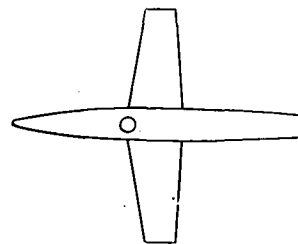
ALPHA = 9.99 DEG C = 2842 N/SQ.M. (59.36 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .379

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-1.444		-3.922		-1.656	
.010			.527	.804				
.015					-4.242	.955		
.025			-3.304	1.014	-3.756	1.004	-1.875	.894
.050			-2.146	.879	-2.386	.853	-1.603	.713
.100			-1.429	.622	-1.651	.620	-1.695	.487
.150			-1.235	.416	-1.385	.447	-1.529	.315
.250	-.642		-.966	.155	-1.055	.214	-1.080	.134
.400	-.648		-.786	-.060	-.805	.026	-.721	-.021
.550	-.537	-.293	-.576	-.112	-.576	-.074	-.487	-.089
.700	-.425	-.466	-.429	-.239	-.398	-.133	-.308	-.095
.850	-.386	-.937	-.324	-.502	-.247	-.176	-.302	-.121
.950	-.391	-.812	-.265	-.391	-.162	-.154	-.151	-.108

ALPHA = 9.98 DEG C = 2846 N/SQ.M. (59.45 LBF/SQ.FT.) EFFECT. VELOC. RATIO = .515

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			.053		-.378		-1.356	
.010			.474	.556				
.015					-1.308	1.005		
.025			-1.407	.569	-1.303	.916	-1.648	.686
.050			-1.487	.802	-1.170	.757	-1.657	.709
.100			-1.406	.582	-1.205	.551	-1.414	.491
.150			-1.469	.436	-1.256	.398	-1.311	.326
.250	-.705		-1.235	.166	-1.245	.200	-1.135	.144
.400	-.687		-.955	-.025	-1.007	.034	-.752	-.002
.550	-.547	-.166	-.642	-.057	-.875	-.064	-.519	-.065
.700	-.401	-.352	-.468	-.172	-.550	-.105	-.418	-.068
.850	-.320	-.796	-.366	-.419	-.361	-.178	-.316	-.104
.950	-.344	-.668	-.274	-.255	-.299	-.223	-.155	-.108

TABLE 39 (A)  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



ALPHA = .00 DEG  
EFF. VEL. RATIO = .099

ALPHA = -.01 DEG  
EFF. VEL. RATIO = .148

ALPHA = -.00 DEG  
EFF. VEL. RATIO = .196

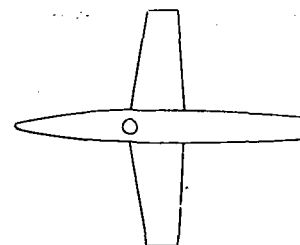
Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.059			-.055			-.057		
.219	-.104			-.069			-.036		
.286	-.152			-.106			-.040		
.331	-.157			-.056			.045		
.353	-.047	-.257	-.394	.154	-.101	-.326	.256	-.012	-.203
.375	.035			.246			.369		
.397		-4.301	-1.419		-4.247	-1.542		-4.262	-1.489
.420	-2.289	-2.010	.153	-1.497	-2.066	-.124	-1.067	-1.818	-1.266
.442	-1.774	-.647	-1.521	-1.775	-.719	-1.242	-1.424	-.822	-1.181
.464	.040	-.464	-.824	-.299	-.532	-1.007	-.205	-.516	-.742
.487	-.464	.159	-.754	-.513	-.422	-.822	-.508	-1.429	-.416
.509	-1.248	-.539	-.743	-.465	-.542	-.710	-.677	-.394	-.500
.531	-.432	-.405	-.512	-.515	-.465	-.563	-.444	-.425	-.428
.554	-.404			-.504			-.546		
.576	-.437			-.548			-.512		
.598	-.492	-.410	-.329	-.421	-.434	-.376	-.407	-.434	-.268
.620	-.473			-.511			-.404		
.643	-.356	-.318	-.233	-.434	-.418	-.312	-.367	-.240	-.252
.665	-.357	-.315	-.280	-.439	-.395	-.300	-.311	-.288	-.237
.687	-.245			-.409			-.381		
.710	-.286			-.366			-.277		
.732	-.223			-.411			-.295		

ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .205  
CP

ALPHA = -.00 DEG  
EFF. VEL. RATIO = .315  
CP

Y/YMAX =	CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8
X/L						
.130	-.039			-.055		
.219	-.020			-.023		
.286	-.036			.020		
.331	.030			.152		
.353	.238	-.021	-.207	.361	.140	-.043
.375	.315			.478		
.397		-4.930	-1.690		-4.135	-1.353
.420	-2.369	-2.304	-2.386	-1.322	-2.462	-1.746
.442	-1.863	-.778	-1.322	-1.580	-.875	-1.166
.464	.514	-.547	-.930	-1.272	-.620	-.846
.487	-.702	-1.398	-.638	-.509	-.629	-.544
.509	-.372	-.354	-.428	-.379	-.420	-.447
.531	-.635	-.387	-.492	-.373	-.386	-.391
.554	-.496			-.416		
.576	-.406			-.307		
.598	-.411	-.372	-.306	-.361	-.304	-.241
.620	-.453			-.310		
.643	-.321	-.356	-.253	-.254	-.240	-.190
.665	-.289	-.285	-.305	-.260	-.245	-.151
.687	-.342			-.226		
.710	-.265			-.250		
.732	-.284			-.195		

TABLE 39 (B)  
PRESSURE PROFILE ON FUSELAGE  
LIFT JET ALONE



ALPHA = 10.02 DEG  
EFF. VEL. RATIO = .100

ALPHA = 10.03 DEG  
EFF. VEL. RATIO = .150

CP			CP		
0.0	0.5	0.8	0.0	0.5	0.8
.070			.060		
.053			.042		
-.076			-.001		
-.087			.021		
.030	-.109	-.316	.200	-.079	-.303
.013			.227		
	-.038	-1.073		-4.451	-1.444
-.008	-1.255	.463	-.687	-2.136	.241
-.988	-.394	-.816	-1.456	-.701	-1.326
.018	-.292	-.715	-.075	-.631	-.845
-.372	-.319	-.576	-.449	-1.561	-.708
-.415	-.383	-.394	-.368	-.411	-.660
-.335	-.404	-.372	-.979	-.433	-.483
-.313			-.519		
-.353			-.512		
-.385	-.340	-.240	-.525	-.473	-.308
-.302			-.500		
-.295	-.351	-.267	-.484	-.448	-.269
-.293	-.331	-.233	-.481	-.414	-.301
-.252			-.493		
-.249			-.429		
-.248			-.388		

ALPHA = 10.01 DEG  
EFF. VEL. RATIO = .199

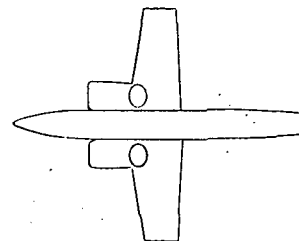
ALPHA = 9.75 DEG  
EFF. VEL. RATIO = .206

ALPHA = 10.01 DEG  
EFF. VEL. RATIO = .316

CP			CP			CP		
Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L								
.130	.079		.038			.091		
.219	.082		.090			.116		
.280	.080		.074			.144		
.331	.131		.110			.247		
.355	.318	.055	.255	.007	-.250	.438	.195	-.149
.375	.370		.299			.483		
.397		-3.750		-5.408	-1.645		-4.495	-1.281
.420	-1.579	-1.633	-2.388	-2.277	-1.074	-1.059	-2.529	-2.428
.442	-1.142	-.563	-1.680	-.684	-1.012	-1.257	-.731	-.914
.464	-1.162	-.486	-2.148	-.550	-.763	-.833	-.430	-.652
.467	-.547	-.392	-.324	-.517	-.465	-.380	-.380	-.429
.509	-.624	-.436	-1.132	-.362	-.345	-.775	-.275	-.358
.531	-.690	-.469	-.515	-.254	-.280	-.244	-.178	-.260
.554	-.600		-.430			-.225		
.576	-.517		-.504			-.226		
.590	-.458	-.470	-.451	-.391	-.188	-.120	-.130	-.106
.620	-.484		-.308			-.172		
.643	-.465	-.410	-.409	-.268	-.216	-.167	-.056	-.046
.665	-.565	-.364	-.282	-.217	-.164	-.126	-.115	-.075
.687	-.442		-.305			-.114		
.710	-.392		-.299			-.120		
.732	-.401		-.262			-.117		



TABLE 40 (A)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = .01 DEG  
EFF. VEL. RATIO = .099

ALPHA = .01 DEG  
EFF. VEL. RATIO = .148

ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .197

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.210			.070			.037		
.219	.259			.092			.055		
.286	.299			.104			.056		
.331	.306			.130			.065		
.353	.319	.299	.266	.130	.142	.092	.079	.055	-.002
.375	.346			.150			.113		
.397		.411	.362		.172	.172		.126	.130
.420	.378	.427	.443	.230	.230	.230	.142	.179	.158
.442	.475	.491	.523	.296	.266	.296	.224	.183	.216
.464	.507	.459	.491	.354	.164	.150	.265	.113	.134
.487	.346	.298	.121	.077	.157	-.274	.020	.044	-.193
.509	.153	.008	-1.330	-.113	-.128	-.668	-.185	-.156	-.818
.531	-.170	-.653	-2.120	-.076	-.215	-1.018	-.164	-.328	-1.156
.554	-.104			-.057			-.151		
.576	.223			.097			-.006		
.598	.438	.299	-.171	.217	.138	-.012	.129	.032	-.031
.620	.445			.277			.258		
.643	.461	.299	.210	.272	.157	-.160	.242	.134	-.177
.665	.445	.313	.299	.253	.114	-.096	.247	.140	-.245
.687	.428			.247			.233		
.710	.445			.207			.233		
.732	.432			.189			.222		

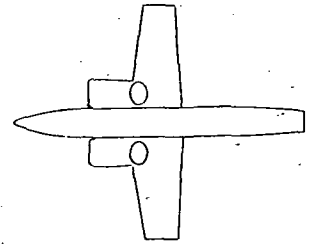
ALPHA = .01 DEG  
EFF. VEL. RATIO = .295

ALPHA = .02 DEG  
EFF. VEL. RATIO = .396

ALPHA = .03 DEG  
EFF. VEL. RATIO = .521

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	.002			.002			-.001		
.219	.022			.010			.002		
.286	-.017			-.025			-.033		
.331	-.016			-.023			-.047		
.353	.047	.003	-.053	.032	-.025	-.072	-.001	-.039	-.090
.375	.058			.027			.011		
.397		.076	.111		.063	.083		.037	.049
.420	.111	.146	.148	.078	.124	.125	.049	.087	.079
.442	.172	.153	.195	.160	.135	.135	.109	.108	.116
.464	.172	.115	.043	.133	.083	-.035	.121	.041	-.049
.487	.049	.040	-.271	.036	.016	-.267	.016	.019	-.223
.509	-.205	-.065	-.621	-.304	-.063	-.442	-.203	-.088	-.319
.531	-.094	-.216	-.908	-.050	-.173	-.585	-.054	-.123	-.362
.554	-.132			-.091			-.078		
.576	-.089			-.064			-.054		
.598	.020	-.197	-.381	-.008	-.189	-.559	-.002	-.053	-.203
.620	.151			.107			.092		
.643	.226	.061	.059	.175	.034	.113	.158	.089	.108
.665	.195	.082	-.023	.198	.120	-.041	.205	.111	-.058
.687	.188			.168			.162		
.710	.146			.137			.135		
.732	.123			.130			.113		

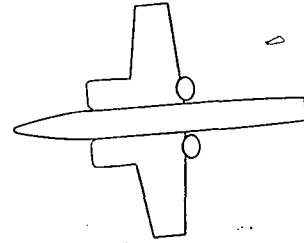
TABLE 40 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.04 DEG EFF. VEL. RATIO = .100				ALPHA = 10.05 DEG EFF. VEL. RATIO = .148				ALPHA = 10.04 DEG EFF. VEL. RATIO = .197			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.438			.270				.222			
.219	.520			.325				.258			
.286	.592			.353				.274			
.331	.595			.350				.242			
.353	.598	.572	.578	.380	.349	.349		.294	.270	.247	
.375	.560			.372				.310			
.397		.592	.544		.379	.379			.319	.323	
.420	.656	.640	.576	.386	.401	.444		.306	.364	.331	
.442	.672	.672	.736	.451	.430	.480		.396	.388	.429	
.464	.704	.640	.720	.487	.357	.379		.429	.319	.335	
.487	.544	.624	.321	.263	.169	-.055		.237	.245	.106	
.509	-.094	.177	-.971	.003	.053	-.468		.044	.065	-.501	
.531	-.050	-.540	-2.153	.046	-.106	-.722		.028	-.050	-.951	
.554	-.024			.064				.020			
.576	.310			.141				.095			
.598	.530	.366	-.037	.264	.193	.015		.180	.017	.017	
.620	.507			.279				.254			
.643	.490	.310	.123	.282	.096	-.164		.243	.116	-.186	
.665	.457	.307	.300	.230	.046	-.164		.227	.111	-.182	
.687	.464			.229				.207			
.710	.356			.223				.187			
.732	.444			.220				.156			

ALPHA = 10.00 DEG EFF. VEL. RATIO = .295				ALPHA = 10.03 DEG EFF. VEL. RATIO = .391				ALPHA = 9.97 DEG EFF. VEL. RATIO = .517			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.174			.179				.214			
.219	.224			.229				.270			
.286	.224			.218				.241			
.331	.217			.194				.214			
.353	.261	.214	.204	.239	.208	.186		.260	.220	.211	
.375	.233			.216				.218			
.397		.259	.283		.253	.277			.239	.266	
.420	.277	.314	.316	.274	.287	.284		.282	.270	.266	
.442	.372	.312	.374	.334	.301	.339		.329	.270	.306	
.464	.398	.277	.252	.305	.262	.173		.337	.239	.198	
.487	.215	.219	-.053	.202	.198	-.062		.172	.198	.030	
.509	.122	.120	-.307	.150	.104	-.282		.113	.125	-.082	
.531	.098	.018	-.594	.109	.007	-.396		.101	.044	-.174	
.554	.057			.070				.064			
.576	.101			.073				.078			
.598	.148	-.076	-.286	.113	-.000	-.250		.117	.096	.066	
.620	.206			.189				.174			
.643	.242	-.041	.084	.221	.050	.154		.216	.160	.150	
.665	.215	-.002	.004	.240	.051	.107		.233	.119	.063	
.687	.172			.223				.244			
.710	.110			.166				.210			
.732	.078			.108				.183			

TABLE 41 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .097

ALPHA = .01 DEG  
EFF. VEL. RATIO = .146

ALPHA = .01 DEG  
EFF. VEL. RATIO = .195

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.543			-.273			-.176		
.219	-.526			-.267			-.161		
.286	-.486			-.270			-.210		
.331	-.509			-.316			-.232		
.353	-.519	-.506	-.566	-.297	-.315	-.380	-.224	-.246	-.299
.375	-.554			-.307			-.224		
.397		-.603	-.620		-.329	-.337		-.236	-.273
.420	-.587	-.587	-.554	-.344	-.286	-.300	-.277	-.187	-.183
.442	-.587	-.538	-.603	-.315	-.264	-.322	-.216	-.130	-.199
.464	-.571	-.603	-.603	-.307	-.307	-.293	-.204	-.167	-.183
.487	-.603	-.603	-.587	-.264	-.242	-.271	-.134	-.134	-.142
.509	-.538	-.620	-.587	-.257	-.249	-.235	-.146	-.101	-.101
.531	-.636	-.636	-.620	-.271	-.249	-.235	-.097	-.142	-.077
.554	-.680			-.292			-.090		
.576	-.737			-.321			-.088		
.598	-.864	-.894	-1.035	-.427	-.423	-.524	-.101	-.096	-.165
.620	-1.005			-.557			-.165		
.643	-1.149	-1.324	-1.777	-.762	-.960	-1.721	-.285	-.306	-.777
.665	-1.129	-1.227	-.941	-.900	-1.145	-1.494	-.423	-.508	-1.061
.687	-1.009			-.909			-.557		
.710	-.720			-.732			-.599		
.732	-.552			-.517			-.544		

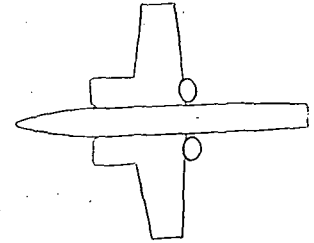
ALPHA = -.01 DEG  
EFF. VEL. RATIO = .292

ALPHA = .01 DEG  
EFF. VEL. RATIO = .391

ALPHA = .00 DEG  
EFF. VEL. RATIO = .510

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.107			-.095			-.082		
.219	-.097			-.070			-.074		
.286	-.174			-.144			-.168		
.331	-.207			-.201			-.206		
.353	-.172	-.168	-.279	-.155	-.179	-.293	-.166	-.221	-.289
.375	-.181			-.181			-.181		
.397		-.187	-.229		-.172	-.208		-.176	-.210
.420	-.230	-.139	-.130	-.201	-.112	-.113	-.207	-.127	-.122
.442	-.172	-.070	-.138	-.155	-.057	-.117	-.154	-.066	-.129
.464	-.136	-.096	-.119	-.124	-.074	-.091	-.117	-.079	-.096
.487	-.041	-.041	-.052	-.028	-.037	-.037	-.045	-.034	-.037
.509	-.032	.003	.008	-.026	.013	.020	-.050	-.000	.023
.531	.026	.043	.048	.040	.047	.071	.018	.032	.057
.554	.055			.074			.054		
.576	.092			.116			.092		
.598	.123	.156	.168	.147	.180	.227	.116	.141	.189
.620	.134			.165			.132		
.643	.104	.134	.211	.147	.128	.167	.115	.100	.074
.665	.049	.039	-.276	.103	.065	-.062	.087	.049	-.003
.687	-.047			.039			.049		
.710	-.152			-.032			-.005		
.732	-.236			-.081			-.039		

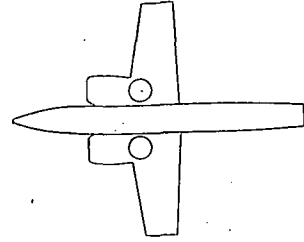
TABLE 41 (B)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 45 DEGREES



ALPHA = 10.00 DEG EFF. VEL. RATIO = .099				ALPHA = 10.02 DEG EFF. VEL. RATIO = .146				ALPHA = 10.01 DEG EFF. VEL. RATIO = .195			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.448			-.169				-.053			
.219	-.391			-.111				-.022			
.286	-.341			-.133				-.031			
.331	-.401			-.163				-.092			
.353	-.401	-.435	-.442	-.179	-.200	-.215		-.071	-.107	-.130	
.375	-.444			-.201				-.094			
.397		-.526	-.558		-.245	-.288			-.139	-.184	
.420	-.558	-.493	-.493	-.288	-.223	-.223		-.196	-.110	-.106	
.442	-.558	-.477	-.591	-.266	-.187	-.283		-.172	-.049	-.176	
.464	-.575	-.558	-.624	-.332	-.237	-.317		-.151	-.098	-.155	
.487	-.558	-.542	-.591	-.201	-.201	-.295		-.053	-.053	-.139	
.509	-.607	-.542	-.624	-.259	-.201	-.266		-.123	-.053	-.082	
.531	-.607	-.624	-.640	-.223	-.208	-.230		-.032	-.036	-.053	
.554	-.649			-.222				-.019			
.576	-.720			-.269				-.008			
.598	-.834	-.864	-1.032	-.351	-.339	-.482		-.021	-.012	-.074	
.620	-.985			-.486				-.066			
.643	-1.183	-1.414	-1.974	-.690	-.836	-1.691		-.143	-.145	-.364	
.665	-1.277	-1.411	-1.277	-.881	-1.159	-1.812		-.287	-.304	-.779	
.687	-1.129			-.994				-.488			
.710	-.928			-.858				-.581			
.732	-.713			-.710				-.593			

ALPHA = 10.00 DEG EFF. VEL. RATIO = .292				ALPHA = 10.05 DEG EFF. VEL. RATIO = .390				ALPHA = 10.01 DEG EFF. VEL. RATIO = .515			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.041			.060				.068			
.219	.075			.097				.089			
.286	.034			.047				.043			
.331	-.029			-.011				-.013			
.353	.010	-.040	-.060	.020	-.027	-.066		.030	-.018	-.059	
.375	-.030			-.028				-.024			
.397		-.048	-.101		-.042	-.090			-.050	-.089	
.420	-.097	-.015	-.023	-.083	-.016	-.026		-.081	-.013	-.025	
.442	-.081	.034	-.065	-.050	.049	-.055		-.057	.043	-.050	
.464	-.054	.005	-.059	-.050	.008	-.041		-.045	.001	-.043	
.487	.043	.052	-.010	.044	.057	.021		.040	.044	.008	
.509	.001	.076	.048	.010	.082	.072		.014	.072	.073	
.531	.094	.096	.105	.102	.111	.120		.089	.096	.120	
.554	.122			.131				.096			
.576	.157			.169				.128			
.598	.178	.215	.241	.189	.230	.287		.150	.178	.250	
.620	.185			.210				.161			
.643	.145	.178	.256	.186	.186	.214		.143	.140	.151	
.665	.080	.070	-.188	.146	.124	.017		.114	.085	.030	
.687	-.026			.074				.082			
.710	-.134			-.004				.037			
.732	-.232			-.070				.008			

TABLE 42 (A)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -.02 DEG  
EFF. VEL. RATIO = .101

ALPHA = -.04 DEG  
EFF. VEL. RATIO = .151

ALPHA = -.04 DEG  
EFF. VEL. RATIO = .202

X/L	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.264			.178			.161		
.219	.250			.235			.246		
.286	.230			.250			.266		
.331	.037			.166			.270		
.353	-.059	-.086	.004	.102	.102	.142	.254	.238	.264
.375	-1.132			.339			.278		
.397		.181	-1.488		-.359	-.926		.144	.421
.420	-1.262	-.062	-1.780	-.156	-1.261	-1.784	.315	-.705	-.232
.442	-2.266	-3.109	-4.033	-1.901	-2.031	-4.045	-.656	-1.194	-3.401
.464	-4.471	-2.574	-2.753	-5.855	-2.787	-2.947	-2.614	-3.116	-4.454
.487	-1.278	-.581	-6.059	-1.850	-1.379	-5.783	-2.104	-1.977	-2.430
.509	-.403	-.970	-6.059	-4.445	-.367	-5.775	-1.170	-2.544	-4.751
.531	-3.871	-.030	-2.445	-.679	-1.377	-2.678	-.729	-2.259	-3.009
.554	-.598			-.728			-.830		
.576	-.785			-.477			-.543		
.598	-.275	-1.227	-1.950	-.238	-.724	-1.203	-.251	-.211	-.773
.620	-.349			-.262			-.053		
.643	-.036	-.182	-.545	-.026	-.047	-.904	.017	-.196	-.955
.665	.177	.097	-.498	.090	.071	-.373	.030	-.062	-.578
.687	.317			.148			.119		
.710	.397			.196			.134		
.732	.427			.236			.162		

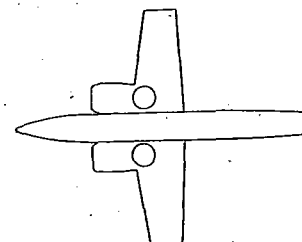
ALPHA = -.01 DEG  
EFF. VEL. RATIO = .303

ALPHA = -.02 DEG  
EFF. VEL. RATIO = .405

ALPHA = -.09 DEG  
EFF. VEL. RATIO = .529

X/L	CP			CP			CP		
	Y/YMAX = 0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
.130	.124			.100			.088		
.219	.261			.220			.196		
.286	.321			.292			.243		
.331	.385			.360			.315		
.353	.436	.430	.412	.432	.412	.409	.401	.384	.367
.375	.367			.396			.413		
.397		.491	.318		.404	.446		.447	.504
.420	.471	.228	.338	.464	.315	.447	.556	.404	.506
.442	.383	-.025	-.271	.409	.148	.030	.473	.225	-.239
.464	-.021	-.962	-2.007	-.002	-.539	-1.468	-.134	-.370	-.997
.487	-1.229	-1.247	-1.721	-.678	-.678	-1.313	-.501	-.474	-1.188
.509	-1.679	-1.338	-1.692	-.899	-1.044	-1.238	-.698	-.925	-1.088
.531	-1.265	-1.497	-1.905	-1.037	-1.235	-1.191	-.806	-.919	-.940
.554	-1.128			-.877			-.798		
.576	-.877			-.791			-.673		
.598	-.623	-.675	-.866	-.634	-.751	-.810	-.538	-.726	-.776
.620	-.379			-.491			-.417		
.643	-.222	-.234	-.736	-.422	-.444	-.511	-.353	-.439	-.420
.665	-.112	-.157	-.944	-.270	-.239	-.451	-.239	-.260	-.326
.687	-.081			-.171			-.184		
.710	-.042			-.100			-.107		
.732	-.009			-.047			-.031		

TABLE 42 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES

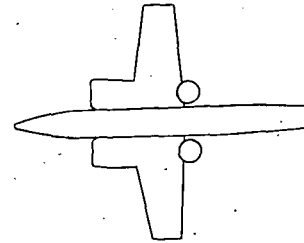


ALPHA = 10.00 DEG EFF. VEL. RATIO = .101				ALPHA = 10.01 DEG EFF. VEL. RATIO = .151				ALPHA = 10.04 DEG EFF. VEL. RATIO = .203			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.583			.406				.350			
.219	.614			.473				.438			
.286	.563			.470				.487			
.331	.362			.374				.478			
.353	.221	.224	.365	.289	.296	.370		.472	.446	.477	
.375	-.347			.031				.430			
.397		-.674	-.963		-.013	-.494			.520	.479	
.420	-.249	-1.573	-3.306	-.042	-1.705	-1.464		.255	-.010	.002	
.442	-3.535	-3.044	-3.551	-1.026	-2.645	-4.439		.304	-.866	-3.271	
.464	-3.878	-3.061	-5.186	-2.208	-3.455	-3.185		-3.059	-2.439	-4.652	
.487	-1.622	-2.178	2.706	-2.682	-3.076	-6.445		-2.093	-2.252	-2.121	
.509	-3.829	-2.260	-5.529	-1.821	-2.798	-5.708		-1.632	-2.582	-4.363	
.531	-3.142	-.690	-3.110	-.363	-1.726	-2.346		-1.269	-1.665	-3.483	
.554	-.222			-.514				-.786			
.576	-.306			-.207				-.447			
.598	-.145	-.491	-.770	-.132	-.267	-1.321		-.180	-.314	-1.327	
.620	-.051			-.060				-.026			
.643	.180	.164	-.300	.081	.078	-.341		-.092	-.165	-1.254	
.665	.415	.258	.385	.156	.076	-.252		-.051	-.096	-.836	
.687	.620			.277				.005			
.710	.634			.293				.066			
.732	.634			.322				.123			

ALPHA = 10.18 DEG EFF. VEL. RATIO = .302				ALPHA = 10.23 DEG EFF. VEL. RATIO = .409				ALPHA = 10.15 DEG EFF. VEL. RATIO = .536			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.312			.275				.263			
.219	.440			.401				.391			
.286	.532			.480				.451			
.331	.571			.538				.506			
.353	.616	.600	.610	.589	.572	.590		.558	.554	.561	
.375	.764			.561				.556			
.397		.668	.610		.572	.715			.602	.725	
.420	.683	.542	.569	.742	.595	.503		.697	.570	.562	
.442	.513	.225	.027	.694	.349	.208		.632	.347	.199	
.464	.056	-.541	-1.771	.170	-.249	-1.121		.195	-.187	-.819	
.487	-1.003	-.959	-1.749	-.529	-.610	-1.209		-.308	-.361	-.915	
.509	-1.201	-1.166	-1.588	-.879	-.962	-1.282		-.610	-.797	-1.026	
.531	-1.258	-1.436	-1.581	-.937	-1.122	-1.271		-.703	-.999	-1.021	
.554	-1.227			-.987				-.816			
.576	-1.062			-.882				-.769			
.598	-.799	-.958	-1.142	-.712	-.841	-1.001		-.645	-.741	-.834	
.620	-.587			-.510				-.489			
.643	-.401	-.433	-.469	-.404	-.494	-.463		-.392	-.502	-.445	
.665	-.334	-.294	-.666	-.338	-.383	-.365		-.345	-.356	-.279	
.687	-.190			-.283				-.208			
.710	-.137			-.215				-.168			
.732	-.088			-.139				-.091			

TABLE 43 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = .00 DEG  
EFF. VEL. RATIO = .098

ALPHA = .02 DEG  
EFF. VEL. RATIO = .147

ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .196

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.356			-.151			-.082		
.219	-.359			-.123			-.045		
.286	-.359			-.121			-.061		
.331	-.423			-.169			-.095		
.353	-.423	-.463	-.490	-.150	-.195	-.241	-.049	-.095	-.146
.375	-.522			-.189			-.080		
.397		-.522	-.587		-.218	-.262		-.109	-.158
.420	-.554	-.571	-.636	-.233	-.189	-.204	-.154	-.060	-.039
.442	-.538	-.489	-.587	-.262	-.160	-.277	-.117	-.010	-.109
.464	-.652	-.652	-.669	-.269	-.255	-.277	-.097	-.043	-.113
.487	-.750	-.718	-.685	-.284	-.335	-.291	-.039	-.039	-.084
.509	-.930	-.865	-.734	-.401	-.364	-.342	-.080	-.080	-.084
.531	-1.257	-1.159	-.946	-.656	-.576	-.474	-.240	-.199	-.154
.554	-1.761			-1.181			-.577		
.576	-2.459			-2.011			-1.227		
.598	-2.711	-2.741	-3.275	-2.866	-3.670	-4.397	-2.098	-2.993	-4.544
.620	-1.758			-2.702			-2.563		
.643	-1.235	-1.956	-1.990	-1.368	-1.462	-2.396	-2.019	-2.082	-2.245
.665	-1.557	-1.574	-1.423	-1.109	-1.089	-1.541	-1.030	-.872	-1.471
.687	-1.003			-.977			-.679		
.710	-.839			-.778			-.642		
.732	-.731			-.652			-.587		

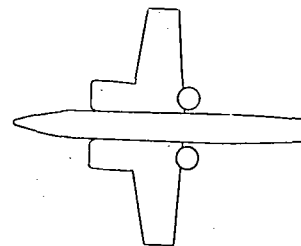
ALPHA = .00 DEG  
EFF. VEL. RATIO = .293

ALPHA = 0.00 DEG  
EFF. VEL. RATIO = .395

ALPHA = -.02 DEG  
EFF. VEL. RATIO = .516

Y/YMAX =	CP			CP			CP		
	0.0	0.5	0.8	0.0	0.5	0.8	0.0	0.5	0.8
X/L									
.130	-.038			-.027			-.039		
.219	-.009			-.005			-.017		
.286	-.040			-.043			-.058		
.331	-.057			-.075			-.092		
.353	-.007	-.061	-.118	-.010	-.079	-.131	-.010	-.090	-.150
.375	-.016			-.015			-.037		
.397		-.022	-.060		-.011	-.057		-.022	-.071
.420	-.066	.044	.051	-.054	.054	.060	-.067	.038	.036
.442	-.009	.121	.020	.011	.137	.046	.006	.128	.044
.464	.049	.117	.064	.062	.143	.105	.059	.132	.100
.487	.174	.156	.113	.214	.210	.185	.211	.205	.187
.509	.179	.190	.187	.255	.266	.266	.219	.273	.285
.531	.172	.203	.214	.284	.302	.323	.305	.324	.357
.554	.063			.247			.306		
.576	-.170			.139			.266		
.598	-.605	-.694	-1.909	-.119	-.117	-.944	-.078	-.192	-.267
.620	-1.068			-.499			-.226		
.643	-1.314	-1.800	-2.626	-.849	-1.171	-1.846	-.574	-.917	-1.515
.665	-1.213	-1.748	-1.769	-.948	-1.236	-1.621	-.727	-.951	-1.317
.687	-.916			-.852			-.714		
.710	-.675			-.687			-.637		
.732	-.560			-.491			-.506		

TABLE 43 (B)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES

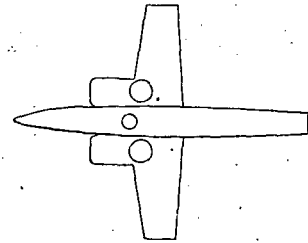


ALPHA = 10.00 DEG EFF. VEL. RATIO = .098				ALPHA = 9.99 DEG EFF. VEL. RATIO = .148				ALPHA = 9.99 DEG EFF. VEL. RATIO = .196			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.126			.131				.131			
.219	.109			.179				.184			
.286	.129			.175				.192			
.331	.058			.100				.151			
.353	.038	.014	-.002	.124	.093	.051		.157	.121	.094	
.375	-.025			.064				.125			
.397		-.124	-.157		.007	-.080			.097	.006	
.420	-.206	-.157	-.141	-.080	.007	-.008		-.010	.097	.109	
.442	-.256	-.157	-.322	-.095	.021	-.138		.023	.170	-.010	
.464	-.305	-.272	-.354	-.131	-.073	-.204		.015	.097	-.026	
.487	-.387	-.404	-.404	-.117	-.109	-.233		.101	.137	-.022	
.509	-.470	-.535	-.453	-.225	-.218	-.247		.039	.039	-.026	
.531	-.963	-.848	-.700	-.522	-.435	-.385		-.108	-.075	-.084	
.554	-1.543			-1.050				-.437			
.576	-2.340			-1.982				-1.067			
.598	-2.793	-3.178	-3.682	-3.057	-4.093	-5.346		-1.950	-2.863	-4.569	
.620	-2.306			-3.237				-2.502			
.643	-.833	-1.658	-1.904	-2.010	-1.604	-2.122		-2.069	-2.395	-2.319	
.665	-.458	-.745	-.965	-.851	-.912	-1.093		-1.088	-.807	-1.307	
.687	-.455			-.662				-.613			
.710	-.357			-.518				-.550			
.732	-.289			-.412				-.461			

ALPHA = 9.98 DEG EFF. VEL. RATIO = .294				ALPHA = 9.99 DEG EFF. VEL. RATIO = .395				ALPHA = 10.00 DEG EFF. VEL. RATIO = .517			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.139			.145				.143			
.219	.200			.186				.180			
.286	.185			.184				.165			
.331	.151			.141				.123			
.353	.202	.149	.119	.190	.138	.116		.175	.124	.083	
.375	.163			.165				.148			
.397		.152	.092		.158	.101			.137	.089	
.420	.083	.194	.191	.098	.198	.194		.095	.182	.183	
.442	.112	.266	.119	.136	.279	.151		.135	.261	.154	
.464	.105	.244	.147	.177	.262	.208		.153	.252	.200	
.487	.291	.299	.192	.335	.333	.242		.315	.312	.272	
.509	.170	.306	.242	.316	.356	.323		.325	.362	.358	
.531	.268	.295	.282	.375	.396	.383		.391	.418	.431	
.554	.171			.325				.394			
.576	-.083			.220				.328			
.598	-.469	-.665	-2.005	-.040	-.098	-.923		.146	.221	-.265	
.620	-.945			-.456				-.182			
.643	-1.310	-2.004	-3.042	-.847	-1.291	-2.101		-.558	-.951	-1.509	
.665	-1.314	-1.892	-1.561	-1.004	-1.408	-1.759		-.749	-1.056	-1.428	
.687	-.976			-.941				-.767			
.710	-.561			-.776				-.695			
.732	-.384			-.576				-.571			



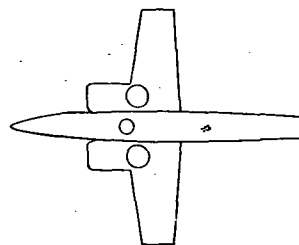
TABLE 44 (A)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.01 DEG EFF. VEL. RATIO = .094				ALPHA = .01 DEG EFF. VEL. RATIO = .142				ALPHA = .00 DEG EFF. VEL. RATIO = .189			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	-.169			.040				.073			
.219	-.166			.093				.164			
.286	-.156			.083				.220			
.331	-.250			.087				.233			
.353	-.196	-.408	-.448	.157	-.024	-.129		.351	.196	.099	
.375	3.178			.363				.137			
.357		-7.841	-.718		-8.630	-.166			-4.668	.006	
.420	-1.946	.068	-5.680	-2.429	-7.752	-8.543		-1.435	-.006	-6.681	
.442	-.866	-.375	-2.421	-4.670	-3.393	-7.281		-1.500	-2.349	-5.497	
.464	.068	-2.028	-.391	-9.515	-4.532	-4.626		-2.051	-2.280	-5.280	
.487	-.473	-.555	-2.716	-1.675	-1.174	-5.315		-2.345	-1.904	-2.835	
.509	-1.013	-.669	-.293	-2.240	-3.814	-3.872		-1.827	-2.398	-3.105	
.531	-1.292	-.882	-2.798	-.637	-1.341	-4.220		-1.325	-2.509	-1.651	
.554	-2.122			-2.119				-1.621			
.576	-1.665			-1.836				-1.414			
.598	-.811	-.845	-1.214	-1.106	-1.283	-2.363		-1.038	-1.278	-2.524	
.620	-.219			-.503				-.595			
.643	.130	.026	-.028	-.337	-.143	-.563		-.295	-.363	-1.107	
.665	.107	.171	.076	-.142	-.078	-.332		-.115	-.104	-.817	
.687	.288			.030				-.106			
.710	.352			.042				.002			
.732	.332			.161				-.001			

ALPHA = .00 DEG EFF. VEL. RATIO = .282				ALPHA = -.01 DEG EFF. VEL. RATIO = .386				ALPHA = .00 DEG EFF. VEL. RATIO = .523			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.079			.084				.075			
.219	.215			.210				.181			
.286	.293			.315				.282			
.331	.408			.432				.436			
.353	.501	.378	.265	.556	.428	.338		.568	.467	.385	
.375	.383			.532				.740			
.357		-1.933	-.208		-1.149	.019			-.873	.079	
.420	.092	-2.461	-1.286	-.131	-1.243	-1.511		.075	-.493	-1.010	
.442	-1.251	-.736	-1.695	-.488	-.151	-1.145		-.553	-.289	-1.648	
.464	-.445	-1.439	-2.439	-.451	-.497	-1.803		-1.271	-1.029	-1.194	
.487	-1.586	-1.370	-2.052	-1.008	-.956	-1.409		-.657	-1.101	-1.097	
.509	-1.531	-1.845	-2.205	-1.174	-1.222	-1.508		-.937	-1.177	-1.302	
.531	-1.385	-1.034	-1.646	-1.131	-1.755	-1.667		-.717	-.781	-1.285	
.554	-1.329			-1.191				-1.035			
.576	-1.174			-1.076				-.901			
.598	-1.032	-.928	-1.155	-.904	-.565	-.803		-.778	-.886	-.842	
.620	-.799			-.702				-.625			
.643	-.632	-.745	-1.620	-.573	-.589	-.923		-.502	-.509	-.553	
.665	-.507	-.682	-1.633	-.457	-.584	-1.093		-.370	-.367	-.453	
.687	-.348			-.390				-.318			
.710	-.303			-.334				-.252			
.732	-.230			-.271				-.217			

TABLE 44 (B)  
PRESSURE PROFILE ON FUSELAGE  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET

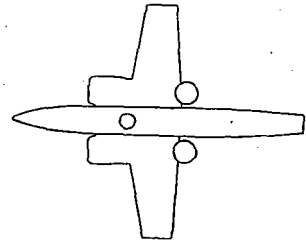


ALPHA = 10.02 DEG EFF. VEL. RATIO = .095				ALPHA = 10.01 DEG EFF. VEL. RATIO = .142				ALPHA = 10.03 DEG EFF. VEL. RATIO = .189			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.038			.116				.184			
.219	.038			.179				.281			
.286	.008			.200				.332			
.331	-.137			.127				.326			
.353	-.130	-.271	-.359	.185	-.002	-.106		.404	.247	.156	
.375	-.381			.059				.507			
.397		-6.373	-2.067		-5.509	-2.005			-3.989	-1.385	
.420	-3.213	-3.131	-1.265	-.614	-7.146	-9.753		-1.099	-6.290	-4.099	
.442	-5.506	-2.575	-4.441	-4.474	-2.540	-2.635		-2.481	-2.109	-1.512	
.464	-1.707	-2.509	-2.067	-2.207	-1.194	-3.873		-4.451	-2.791	-3.494	
.487	-.233	-.430	-2.525	-1.512	-2.005	-4.278		-2.211	-1.851	-4.018	
.509	-3.393	-2.804	-4.867	-1.556	-1.925	-3.453		-1.953	-3.637	-3.609	
.531	-1.740	-1.609	-3.901	-2.721	-3.504	-2.917		-2.951	-1.532	-2.325	
.554	-2.200			-2.279				-1.303			
.576	-1.649			-2.049				-1.428			
.598	-.876	-.785	-1.414	-1.053	-1.472	-2.596		-1.190	-1.315	-2.653	
.620	-.331			-.604				-.725			
.643	-.086	-.042	-.046	-.291	-.266	-.834		-.458	-.337	-1.641	
.665	-.032	.092	-.012	-.134	-.064	-.367		-.263	-.282	-1.142	
.687	.220			-.134				-.169			
.710	.200			-.012				-.082			
.732	.203			.019				.006			

ALPHA = 10.00 DEG EFF. VEL. RATIO = .282				ALPHA = 10.02 DEG EFF. VEL. RATIO = .385				ALPHA = 10.03 DEG EFF. VEL. RATIO = .526			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.236			.232				.211			
.219	.352			.360				.343			
.286	.452			.461				.463			
.331	.518			.548				.562			
.353	.601	.484	.396	.639	.525	.449		.669	.582	.505	
.375	.345			.552				.618			
.397		-.444	-.320		-.546	.228			-.941	.156	
.420	.163	-1.950	-2.076	-.023	-1.402	-.126		.131	-.653	-.907	
.442	-.651	-.645	-2.182	-.301	-.105	-1.195		-.299	.163	-1.504	
.464	.280	-.750	-1.844	-1.200	-.821	-1.632		-1.189	-.316	-1.269	
.487	-1.402	-1.559	-1.974	-.886	-.956	-1.676		-.647	-.430	-1.182	
.509	-1.561	-1.682	-1.702	-1.287	-1.404	-1.487		-.990	-1.188	-1.333	
.531	-.965	-2.638	-2.139	-1.583	-1.159	-1.563		-1.023	-1.369	-1.094	
.554	-1.464			-1.182				-1.095			
.576	-1.403			-1.074				-.998			
.598	-1.212	-1.262	-1.362	-.923	-.958	-1.021		-.901	-.892	-.920	
.620	-1.006			-.774				-.722			
.643	-.923	-.877	-1.636	-.685	-.710	-.958		-.515	-.455	-.533	
.665	-.824	-.765	-1.753	-.624	-.654	-1.074		-.372	-.376	-.490	
.687	-.648			-.603				-.311			
.710	-.518			-.511				-.289			
.732	-.447			-.458				-.287			

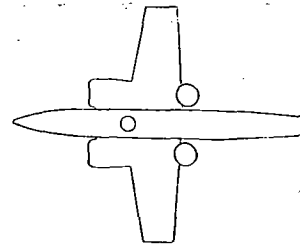
TABLE 45 (A)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = -.02 DEG EFF. VEL. RATIO = .092				ALPHA = -.02 DEG EFF. VEL. RATIO = .140				ALPHA = -.02 DEG EFF. VEL. RATIO = .185		
CP				CP				CP		
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8
X/L										
.130	.053			.065				.040		
.219	.018			.047				.058		
.286	-.057			-.015				.013		
.331	-.164			-.065				-.021		
.353	-.085	-.483	-.644	.056	-.181	-.450		.127	-.116	-.418
.375	-.193			.038				.199		
.397		-5.711	-1.715		-4.622	-1.295			-4.983	-1.596
.420	-4.373	-1.698	.158	-1.417	-1.784	-5.177		-2.620	-1.419	-.424
.442	-.076	-.627	-.978	-2.296	-.646	-1.071		-.346	-.588	-.817
.464	-.026	-.276	-.962	-.618	-.315	-.747		-1.030	-.240	-.580
.487	-.243	.142	-1.229	-.452	-.474	-.517		-.371	-.563	-.477
.509	-.377	-.326	-.611	-.502	-.430	-.445		-.354	-.281	-.342
.531	-.711	-.544	-.644	-.661	-.560	-.495		-.506	-.346	-.313
.554	-1.011			-1.089				-.799		
.576	-1.471			-1.669				-1.424		
.598	-1.612	-1.691	-2.240	-2.203	-2.753	-3.424		-2.136	-2.955	-4.231
.620	-.856			-1.849				-2.310		
.643	-.668	-.702	-.887	-1.073	-1.184	-1.636		-1.514	-1.598	-2.007
.665	-.482	-.592	-.719	-.856	-1.064	-1.107		-1.021	-1.163	-1.176
.687	-.379			-.789				-.880		
.710	-.208			-.607				-.620		
.732	-.173			-.452				-.553		

ALPHA = -.00 DEG EFF. VEL. RATIO = .278				ALPHA = -.04 DEG EFF. VEL. RATIO = .379				ALPHA = -.13 DEG EFF. VEL. RATIO = .512		
CP				CP				CP		
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8
X/L										
.130	.045			.054				.055		
.219	.088			.107				.112		
.286	.071			.119				.175		
.331	.108			.225				.324		
.353	.300	.040	-.217	.414	.190	-.047		.510	.337	.099
.375	.376			.517				.643		
.397		-4.691	-1.513		-4.071	-1.204			-.857	-.506
.420	-1.330	-1.800	-1.575	-1.115	-2.097	-2.057		-.461	-.732	-.677
.442	-.937	-.559	-.666	-1.278	-.618	-.793		-.534	-.694	-.574
.464	-.738	-.240	-.474	-.940	-.190	-.460		-.538	-.643	-.473
.487	-.299	.083	-.281	.053	.062	-.173		-.469	-.301	-.346
.509	-.116	-.345	-.098	.074	.083	.071		-.256	-.262	-.173
.531	-.081	-.145	-.034	.163	.152	.180		-.121	-.089	-.030
.554	-.209			.177				.015		
.576	-.457			.104				.103		
.598	-1.020	-1.220	-2.959	-.199	-.207	-1.390		-.028	.063	-.295
.620	-1.514			-.697				-.274		
.643	-1.655	-2.156	-1.993	-1.103	-1.356	-1.735		-.781	-1.144	-1.510
.665	-1.323	-1.394	-1.294	-1.121	-1.418	-1.453		-.920	-1.178	-1.306
.687	-.865			-.820				-.798		
.710	-.677			-.554				-.594		
.732	-.514			-.398				-.399		

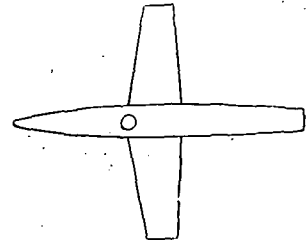
TABLE 45 (B)  
PRESSURE PROFILE ON FUSELAGE  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



ALPHA = 9.97 DEG EFF. VEL. RATIO = .093				ALPHA = 9.99 DEG EFF. VEL. RATIO = .139				ALPHA = 9.99 DEG EFF. VEL. RATIO = .186			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.350			.207				.194			
.219	.302			.192				.213			
.286	.221			.137				.150			
.331	.086			.040				.103			
.353	.137	-.130	-.292	.136	-.140	-.296		.212	-.031	-.254	
.375	.093			.110				.227			
.397		-3.923	-1.289		-5.166	-1.467			-4.430	-1.551	
.420	.258	-.746	.258	-.525	-1.773	.992		-2.677	-1.563	-.318	
.442	.406	.093	-.384	-2.722	-.248	-1.022		-1.121	-.527	-.871	
.464	-1.042	.110	-.318	-1.846	-.175	-.657		-1.198	-.203	-.449	
.487	.077	.274	-.466	-.387	-.095	-.606		-.219	-.187	-.420	
.509	-.071	.061	-.236	-.452	-.438	-.482		-.318	-.187	-.269	
.531	-.417	-.400	-.318	-.671	-.540	-.518		-.473	-.416	-.310	
.554	-.809			-1.127				-.814			
.576	-1.268			-1.795				-1.403			
.598	-1.451	-1.721	-2.106	-2.352	-2.930	-3.714		-2.259	-3.024	-4.423	
.620	-.897			-1.946				-2.425			
.643	-.501	-.511	-1.126	-.968	-1.175	-1.787		-1.581	-1.606	-2.190	
.665	-.349	-.353	-.687	-.842	-.995	-1.182		-1.013	-1.048	-1.341	
.687	-.113			-.670				-.797			
.710	-.099			-.514				-.659			
.732	.060			-.433				-.492			

ALPHA = 9.99 DEG EFF. VEL. RATIO = .279				ALPHA = 9.99 DEG EFF. VEL. RATIO = .379				ALPHA = 9.98 DEG EFF. VEL. RATIO = .515			
CP				CP				CP			
Y/YMAX =	0.0	0.5	0.8	0.0	0.5	0.8		0.0	0.5	0.8	
X/L											
.130	.200			.196				.209			
.219	.253			.276				.290			
.286	.250			.314				.356			
.331	.238			.377				.465			
.353	.387	.142	-.086	.526	.317	.062		.630	.457	.223	
.375	.400			.533				.651			
.397		-4.432	-1.305		-3.663	-.978			-.651	-.395	
.420	-1.373	-1.595	-3.177	-1.008	-1.721	-1.377		-.393	-.474	-.491	
.442	-.897	-.525	-.652	-.898	-.667	-.671		-.351	-.477	-.454	
.464	.028	-.273	-.344	-.743	-.336	-.426		-.417	-.457	-.420	
.487	-.295	-.295	-.287	-.070	-.188	-.133		-.326	-.590	-.317	
.509	-.255	-.408	-.087	.022	-.002	-.059		-.202	-.215	-.180	
.531	-.152	-.090	-.110	.129	.180	.121		-.108	-.135	-.095	
.554	-.256			.177				-.049			
.576	-.629			.121				.005			
.598	-1.083	-1.374	-3.037	-.155	-.242	-1.487		-.029	-.003	-.317	
.620	-1.714			-.723				-.301			
.643	-1.777	-2.252	-2.115	-1.204	-1.486	-1.876		-.687	-1.076	-1.283	
.665	-1.386	-1.542	-1.384	-1.247	-1.613	-1.539		-.889	-1.128	-1.200	
.687	-.885			-1.022				-.855			
.710	-.718			-.646				-.672			
.732	-.595			-.478				-.496			

TABLE 46  
PRESSURE PROFILE ON WING  
LIFT JET ALONE



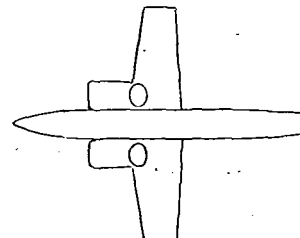
ALPHA = .00 DEG THRUST = 361 N ( 81 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000	-.04		-.04		-.04		-.03	
.010	-.01	-.03	-1.83	-.04				
.015					-.02	-.03		
.025	-.013	-.031	-.009	-.029	-.013	-.031	-.013	-.107
.050	-.011	-.036	-.007	-.031	-.011	-.047	-.016	-.038
.100	-.016	-.038	-.002	-.034	-.013	-.045	-.009	-.054
.150	-.018	-.034	-.011	-.040	-.009	-.029	-.011	-.146
.250	-.020	-.036	-.016	-.030	-.006	-.050	-.016	-.035
.400	-.022	-.039	-.018	-.040	-.017	-.053	-.015	-.037
.550	-.024	-.035	-.022	-.039	-2.226	-.052	-.017	-.035
.700	-.027	-.034	-.021	-.045	-.023	-.039	-.016	-.030
.850	-.035	-.035	-.022	-.033	-.028	-.030	-.018	-.040
.950	-.035	-.038	-.025	-.034	-.033	-.033	-.024	-.020

ALPHA = 9.99 DEG THRUST = 353 N ( 79 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000	-.03		-.03		-.02		-.02	
.010	-.02	-.01	-1.85	-.02				
.015					-.02	-.02		
.025	-.007	-.018	-.014	-.023	-.023	-.018	-.044	-.069
.050	-.014	-.016	-.009	-.023	-.014	-.021	-.014	-.041
.100	-.007	-.021	-.011	-.027		-.016	-.014	-.053
.150	-.016	-.016	-.009	-.018	-.002	-.007		-.030
.250	-.007	-.018	-.007	-.021	-.011	-.022	-.035	-.022
.400	-.008	-.036	-.010	-.012	-.008	-.017	-.011	-.021
.550	-.009	-.018	-.011	-.019	-3.042	-.016	-.011	-.016
.700	-.011	-.019	-.016	-.018	-.013	-.017	-.039	-.023
.850	-.007	-.014	-.013	-.023	-.012	-.019	-.038	-.022
.950	-.012	-.024	-.012	-.018	-.012	-.017	-.012	-.017

TABLE 47  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 45 DEGREES



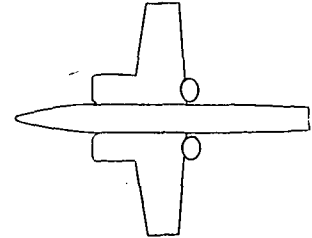
ALPHA = .02 DEG THRUST = 638 N ( 143 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-1.281		-1.247		-.485	
.010			-1.274	-1.112				
.015					-.047	-1.119		
.025			-.034	-1.132	-.027	-1.052	-.023	-.553
.050			-.034	-1.092	-.040	-.930	-.040	-.425
.100			-.061	-.964	-.061	-.721	-.067	-.310
.150			-.081	-.890	-.074	-.553	-.088	-.297
.250	-.115		-.088	-.954	-.088	-.484	-.108	-.268
.400	-.114		-.111	-1.026	-.105	-.441	-.114	-.242
.550	-.114	-.657	-.118	-.640	-.114	-.372	-.127	-.212
.700	-.124	-.333	-.134	-.438	-.121	-.307	-.127	-.189
.850	-.127	-.199	-.144	-.337	-.137	-.258	-.124	-.163
.950	-.140	-.103	-.176	-.281	-.160	-.225	-.127	-.154

ALPHA = 9.98 DEG THRUST = 638 N ( 143 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.992		-.600		-.054	
.010			-2.192	-.890				
.015					-.034	-.553		
.025			-.027	-.762	-.040	-.499	-.101	-.229
.050			-.040	-.654	-.061	-.526	-.103	-.202
.100			-.054	-.600	-.088	-.371	-.128	-.202
.150			-.088	-.654	-.108	-.371	-.121	-.196
.250	-.108		-.115	-.726	-.115	-.383	-.135	-.199
.400	-.111		-.144	-.814	-.141	-.353	-.144	-.193
.550	-.114	-.575	-.141	-.536	-.147	-.320	-.134	-.177
.700	-.128	-.275	-.137	-.353	-.137	-.255	-.128	-.173
.850	-.134	-.180	-.120	-.258	-.157	-.213	-.124	-.157
.950	-.141	-.157	-.144	-.209	-.154	-.173	-.124	-.144

TABLE 48  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 45 DEGREES



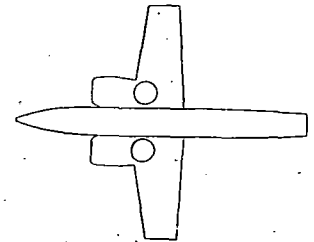
ALPHA = -0.00 DEG THRUST = 652 N ( 147 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.316		-.297		-.099	
.010			-4.470	-.356				
.015					-.020	-.336		
.025			-.053	-.310	-.040	-.310	-.059	-.237
.050			-.086	-.283	-.066	-.283	-.073	-.224
.100			-.092	-.244	-.066	-.218	-.079	-.191
.150			-.092	-.244	-.105	-.211	-.105	-.185
.250	-.132		-.112	-.240	-.112	-.208	-.112	-.179
.400	-.141		-.150	-.233	-.141	-.208	-.128	-.179
.550	-.144	-.240	-.137	-.220	-.141	-.198	-.128	-.160
.700	-.147	-.272	-.150	-.220	-.134	-.179	-.118	-.157
.850	-.173	-.438	-.157	-.243	-.134	-.169	-.144	-.134
.950	-.211	-.345	-.173	-.220	-.144	-.160	-.125	-.121

ALPHA = 9.99 DEG THRUST = 653 N ( 147 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.007		-.013		-.040	
.010			-2.972	-.072				
.015					-.158	-.053		
.025			-.171	-.099	-.152	-.079	-.165	-.046
.050			-.138	-.092	-.145	-.079	-.158	-.086
.100			-.145	-.138	-.138	-.112	-.138	-.099
.150			-.132	-.125	-.138	-.112	-.125	-.105
.250	-.105		-.145	-.153	-.138	-.141	-.138	-.121
.400	-.131		-.147	-.179	-.134	-.153	-.137	-.125
.550	-.134	-.211	-.150	-.182	-.131	-.150	-.125	-.125
.700	-.147	-.259	-.141	-.185	-.125	-.147	-.118	-.115
.850	-.163	-.364	-.150	-.204	-.125	-.150	-.115	-.112
.950	-.201	-.339	-.166	-.201	-.134	-.134	-.109	-.109

TABLE 49  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES



ALPHA = -0.01 DEG

THRUST = 609 N (137 LBF)

X/C	ETA = .250		ETA = .367		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.219		-.367		-.636	
.010			-1.264	-.360				
.015					-.085	-.184		
.025			-.092	-.226	-.042	-.240	-.014	-.346
.050			-.049	-.219	-.049	-.530	-.028	-.155
.100			-.042	-.466	-.042	-.290	-.042	-.593
.150			-.014	-.198	-.042	-.473	-.071	-.982
.250	-.078		-.085	-.277	-.071	-.216	-.042	-.178
.400	-.134		-.092	-.455	-.062	-.387	-.058	-.267
.550	-.147	-.192	-.099	-.181	-.099	-.541	-.092	-.264
.700	-.161	-.216	-.151	-.407	-.140	-.185	-.099	-.250
.850	-.157	-.284	-.116	-.216	-.168	-.209	-.113	-.202
.950	-.202	-.192	-.154	-.236	-.140	-.157	-.147	-.168

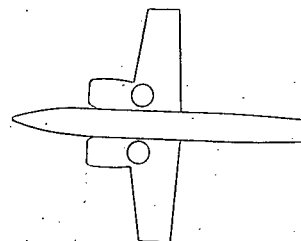
ALPHA = 10.00 DEG

THRUST = 607 N (136 LBF)

X/C	ETA = .250		ETA = .367		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.099		-.234		-.340	
.010			-1.028	-.099				
.015					-.177	-.312		
.025			-.142	-.255	-.227	-.270	-.270	-.333
.050			-.079	-.347	-.078	-.156	-.142	-.433
.100			-.043	-.227	-.050	-.262	-.099	-.355
.150			-.050	-.078	-.099	-.184	-.078	-.142
.250	-.064		-.071	-.217	-.071	-.278	-.085	-.158
.400	-.058		-.034	-.100	-.031	-.364	-.055	-.151
.550	-.055	-.323	-.031	-.117	-.038	-.144	-.052	-.117
.700	-.079	-.254	-.062	-.082	-.031	-.213	-.045	-.168
.850	-.086	-.113	-.052	-.113	-.055	-.131	-.055	-.144
.950	-.110	-.100	-.065	-.137	-.058	-.113	-.032	-.144



TABLE 50  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



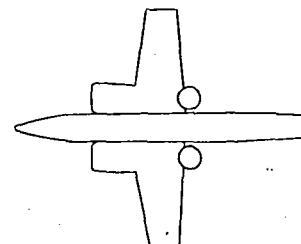
ALPHA = 10.00 DEG THRUST = 607 N ( 136 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.191		-.333		-.574	
.010			-3.431	-.199				
.015					-.255	-.376		
.025			-.073	-.156	-.106	-.199	-.163	-.553
.050			-.043	-.227	-.121	-.206	-.057	-.666
.100			-.021	-.362	-.035	-.262	-.007	-.652
.150			-.023	-.184	-.028	-.312	-.043	-.404
.250	-.028		-.014	-.378	-.035	-.505	-.021	-.598
.400	-.072		-.072	-.234	-.045	-.584	-.079	-.306
.550	-.058	-.148	-.055	-.598	-.072	-.347	-.055	-.124
.700	-.079	-.089	-.069	-.206	-.069	-.113	-.048	-.137
.850	-.107	-.079	-.076	-.144	-.079	-.141	-.072	-.158
.950	-.137	-.162	-.151	-.158	-.110	-.158	-.082	-.141

ALPHA = 10.00 DEG THRUST = 607 N ( 137 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.191		-.220		-.411	
.010			-2.995	-.184				
.015					-.142	-.135		
.025			-.105	-.269	-.149	-.149	-.205	-.135
.050			-.021	-.113	-.071	-.191	-.071	-.531
.100			-.064	-.305	-.113	-.220	-.099	-.220
.150			-.050	-.163	-.042	-.205	-.064	-.205
.250	-.057		-.042	-.213	-.042	-.206	-.064	-.165
.400	-.051		-.056	-.093	-.051	-.161	-.045	-.158
.550	-.055	-.206	-.062	-.113	-.072	-.168	-.051	-.154
.700	-.055	-.134	-.058	-.124	-.065	-.158	-.058	-.113
.850	-.065	-.096	-.065	-.178	-.058	-.172	-.069	-.175
.950	-.093	-.079	-.120	-.137	-.076	-.172	-.058	-.196

TABLE 51  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES



ALPHA = 0.00 DEG THRUST = 646 N ( 145 LBF)

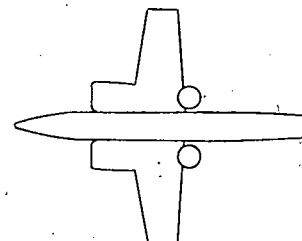
X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.207		-.247		-.393	
.010			-3.411	-.187				
.015					-.133	-.247		
.025			-.073	-.207	-.160	-.320	-.073	-.360
.050			-.027	-.220	-.067	-.286	-.027	-.373
.100			-.033	-.253	-.033	-.286	-.020	-.333
.150			-.067	-.273	-.053	-.326	-.047	-.393
.250	-.047		-.027	-.284	-.013	-.317	-.033	-.436
.400	-.061		-.042	-.220	-.036	-.349	-.045	-.362
.550	-.068	-.388	-.058	-.258	-.045	-.255	-.058	-.207
.700	-.087	-.455	-.065	-.191	-.078	-.339	-.048	-.191
.850	-.120	-.352	-.090	-.249	-.081	-.165	-.084	-.155
.950	-.171	-.287	-.135	-.126	-.107	-.226	-.090	-.132

ALPHA = 10.00 DEG THRUST = 641 N ( 144 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.087		-.081		-.161	
.010			-2.650	-.094				
.015					-.134	-.094		
.025			-.074	-.081	-.121	-.161	-.134	-.221
.050			-.114	-.148	-.067	-.154	-.107	-.288
.100			-.114	-.148	-.087	-.174	-.060	-.154
.150			-.047	-.127	-.067	-.221	-.060	-.141
.250	-.047		-.067	-.234	-.060	-.244	-.050	-.205
.400	-.042		-.062	-.127	-.039	-.137	-.059	-.195
.550	-.049	-.276	-.059	-.094	-.059	-.166	-.039	-.111
.700	-.075	-.309	-.065	-.111	-.055	-.166	-.042	-.205
.850	-.075	-.267	-.068	-.114	-.068	-.176	-.049	-.368
.950	-.159	-.283	-.078	-.133	-.081	-.198	-.104	-.185

TABLE 52  
PRESSURE PROFILE ON WING

REAR NOZZLES DEFLECTED 90 DEGREES WITH FLAPS



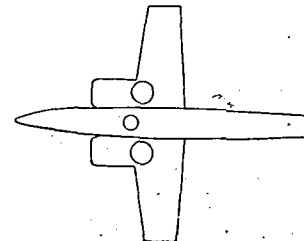
ALPHA = -.01 DEG THRUST = 643 N ( 145 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.201		-.174		-.248	
.010			-2.677	-.114				
.015					-.161	-.268		
.025			-.100	-.181	-.080	-.281	-.127	-.301
.050			-.054	-.254	-.007	-.261	-.027	-.348
.100			-.033	-.221	-.020	-.181	-.040	-.415
.150			-.027	-.214	-.033	-.241	-.007	-.415
.250	-.060		-.040	-.259	-.040	-.276	-.060	-.373
.400	-.088		-.049	-.295	-.062	-.334	-.045	-.334
.550	-.094	-.204	-.084	-.247	-.055	-.234	-.065	-.315
.700	-.088	-.448	-.091	-.126	-.078	-.279	-.088	-.201
.850	-.114	-.438	-.094	-.165	-.097	-.272	-.101	-.123
.950	-.156	-.402	-.143	-.237	-.126	-.224	-.104	-.143

ALPHA = 9.96 DEG THRUST = 639 N ( 144 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER	CP' X 100 UPPER	LOWER
.000			-.081		-.121		-.222	
.010			-.576	-.087				
.015					-.101	-.182		
.025			-.061	-.101	-.067	-.202	-.074	-.182
.050			-.020	-.087	-.081	-.155	-.061	-.148
.100			-.020	-.168	-.081	-.161	-.020	-.168
.150			-.013	-.101	-.061	-.195	-.034	-.188
.250	-.054		-.020	-.111	-.020	-.091	-.027	-.238
.400	-.055		-.065	-.130	-.010	-.170	-.052	-.228
.550	-.049	-.342	-.020	-.137	-.029	-.117	-.016	-.117
.700	-.052	-.313	-.029	-.076	-.026	-.150	-.010	-.170
.850	-.081	-.238	-.029	-.078	-.052	-.117	-.049	-.143
.950	-.095	-.228	-.065	-.091	-.075	-.130	-.068	-.143

TABLE 53  
PRESSURE PROFILE ON WING  
FORWARD NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



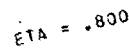
ALPHA = .01 DEG THRUST = 830 N ( 187 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.172		-.271		-.302	
.010			-2.628	-.142				
.015					-.160	-.228		
.025			-.049	-.123	-.105	-.302	-.197	-.357
.050			-.043	-.172	-.062	-.345	-.129	-.406
.100			-.086	-.283	-.058	-.185	-.099	-.628
.150			-.062	-.191	-.062	-.166	-.058	-.696
.250	-.012		-.037	-.185	-.043	-.213	-.031	-.349
.400	-.042		-.027	-.230	-.045	-.161	-.051	-.227
.550	-.051	-.069	-.045	-.063	-.048	-.152	-.045	-.149
.700	-.057	-.098	-.060	-.122	-.048	-.146	-.057	-.221
.850	-.057	-.081	-.060	-.092	-.063	-.230	-.069	-.385
.950	-.078	-.125	-.104	-.119	-.095	-.152	-.110	-.286

ALPHA = 10.00 DEG THRUST = 824 N ( 185 LBF)

X/C	ETA = .250		ETA = .387		ETA = .524		ETA = .800	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
.000			-.081		-.143		-.198	
.010			-2.205	-.105				
.015					-.167	-.124		
.025			-.099	-.093	-.118	-.167	-.205	-.415
.050			-.074	-.074	-.068	-.217	-.211	-.501
.100			-.068	-.093	-.105	-.149	-.087	-.304
.150			-.081	-.087	-.037	-.285	-.050	-.143
.250	-.031		-.069	-.186	-.081	-.150	-.062	-.652
.400	-.069		-.048	-.129	-.072	-.303	-.056	-.180
.550	-.051	-.084	-.054	-.150	-.042	-.162	-.069	-.147
.700	-.057	-.111	-.081	-.201	-.051	-.355	-.087	-.129
.850	-.072	-.084	-.087	-.261	-.069	-.448	-.081	-.238
.950	-.069	-.102	-.078	-.264	-.087	-.370	-.093	-.207

TABLE 54  
PRESSURE PROFILE ON WING  
REAR NOZZLES DEFLECTED 90 DEGREES WITH LIFT JET



THRUST = 860 N ( 193 LBF )  
CFA = .524

$$E_{TA} = .524$$

CP'X 100  
UPPER LOWER

-446

ETA = .387

CP' X 100  
UPPER LOWER

-.143	-.339
-.053	-.267
-.071	-.333
-.083	-.309
-.059	-.374
-.049	-.181
-.046	-.204
-.052	-.228
-.060	-.135
-.086	-.144

ETA = .250  
CP X 100  
UPPER LOWER

CP' x 100  
UPPER LOWER

-220	
-166	-202
-150	-205
-171	-250
-171	-327
-153	-178
-153	-268
-166	-288
-144	-259
-158	-170
-166	-164
-115	-155

000  
010  
015  
020  
050  
100  
150  
250  
400  
550  
700  
850  
950

-.036	-.285
-.043	-.308
-.055	-.363
-.058	-.314
-.069	?
-.176	

-3.111  
 -3.594  
 -1.131  
 -.089  
 -.071  
 -.071  
 -.053  
 -.052  
 -.037  
 -.048  
 -.081  
 -.072  
 -.172  
 -.143  
 -.232  
 -.190  
 -.250  
 -.216  
 -.228  
 -.184  
 -.161  
 -.130  
 -.193

THRUST = 852 N ( 192 LBF )  
C<sub>T</sub> = .524

ETA = .524

ETA = .800  
UPPER CP X 100 LOWER

- 264

ALPHA = 9.97 DEG

ETA = .387

CP' X 100  
UPPER LOWER

CP X 100  
UPPER LOWER  
-264

LTA = .250  
CP' X 100  
UPPER LOWER

CP X 100  
UPPER LOWER

156 10

-.168	-.289
-.102	-.342
-.072	-.318
-.096	-.384
-.066	-.206
-.055	-.174
-.052	-.157
-.079	-.276
-.081	-.227
-.116	-.297

.000  
.010  
.015  
.025  
.050  
.100  
.150  
.250  
.400  
.550  
.700  
.850  
.950

-.054	
-.041	-.183
-.055	-.253
-.055	-.297
-.070	-.270
-.093	

- .162  
-2.231

- .133  
-.042  
-.048  
-.048  
-.048  
-.049  
-.051  
-.053  
-.096  
-.081

-.120  
-.198  
-.234  
-.234  
-.114  
-.087  
-.090  
-.148  
-.157  
-.183  
-.186

-.100	-.100
-.114	-.282
-.114	-.216
-.078	-.192
-.380	-.285
-.342	-.230
-.364	-.238
-.061	-.224
-.361	-.201
-.079	-.186
-.102	

## GEOMETRY

## Wing:

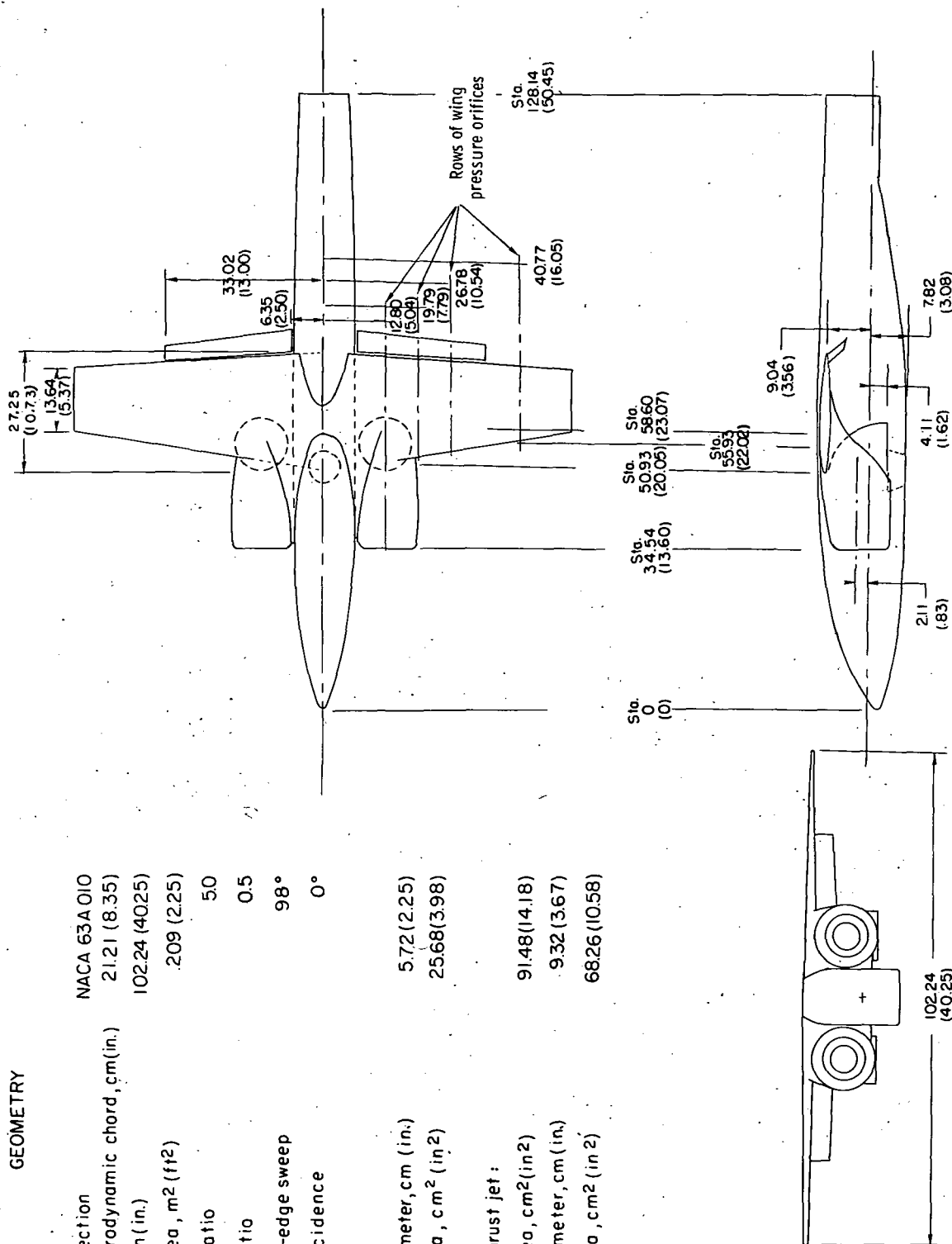
Airfoil section	NACA 63A010
Mean aerodynamic chord, cm (in.)	21.21 (8.35)
Span, cm (in.)	102.24 (40.25)
Wing area, m <sup>2</sup> (ft <sup>2</sup> )	209 (2.25)
Aspect ratio	50
Taper ratio	0.5
Leading-edge sweep	98°
Wing incidence	0°

## Lift jet:

Exit diameter, cm (in.)	5.72 (2.25)
Exit area, cm <sup>2</sup> (in <sup>2</sup> )	25.68 (3.98)

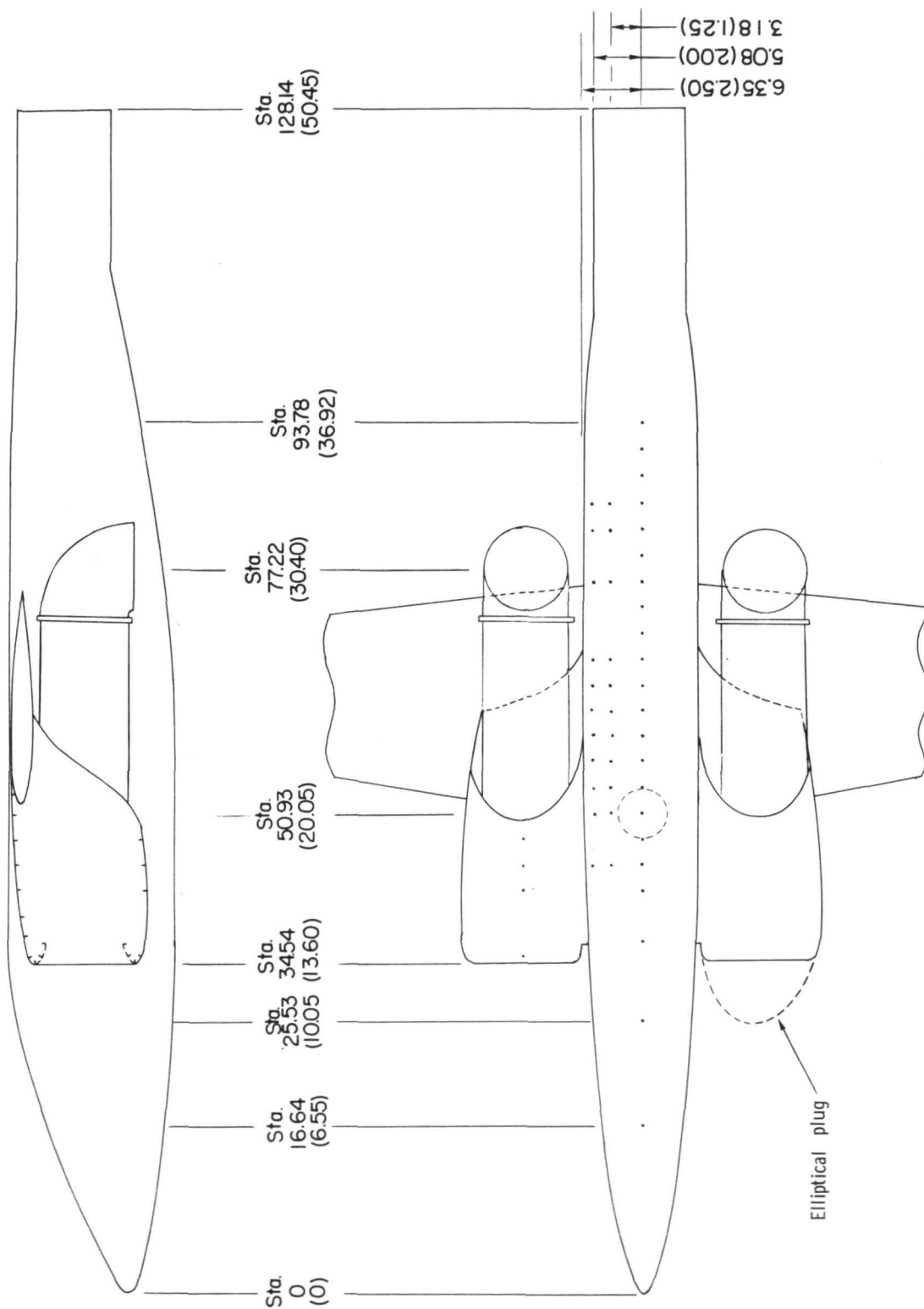
## Vectored thrust jet:

Inlet area, cm <sup>2</sup> (in <sup>2</sup> )	91.48 (14.18)
Exit diameter, cm (in.)	9.32 (3.67)
Exit area, cm <sup>2</sup> (in <sup>2</sup> )	68.26 (10.58)



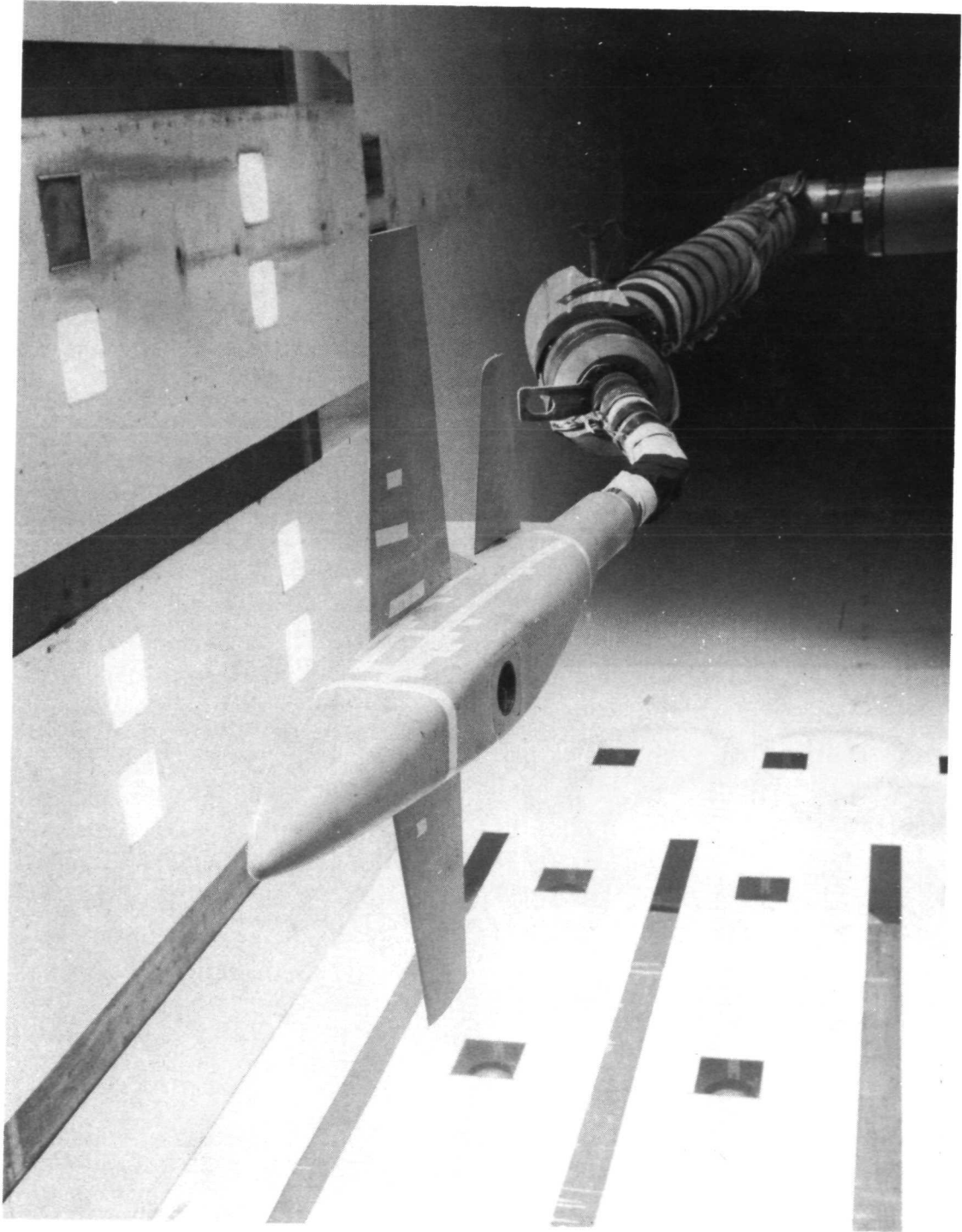
(a) Front vectored-thrust configuration with lift jet and flaps.

Figure 1.- Details of model. All dimensions are in centimeters (inches) unless otherwise noted.



(b) Rear vectored-thrust configuration.

Figure 1.- Concluded.

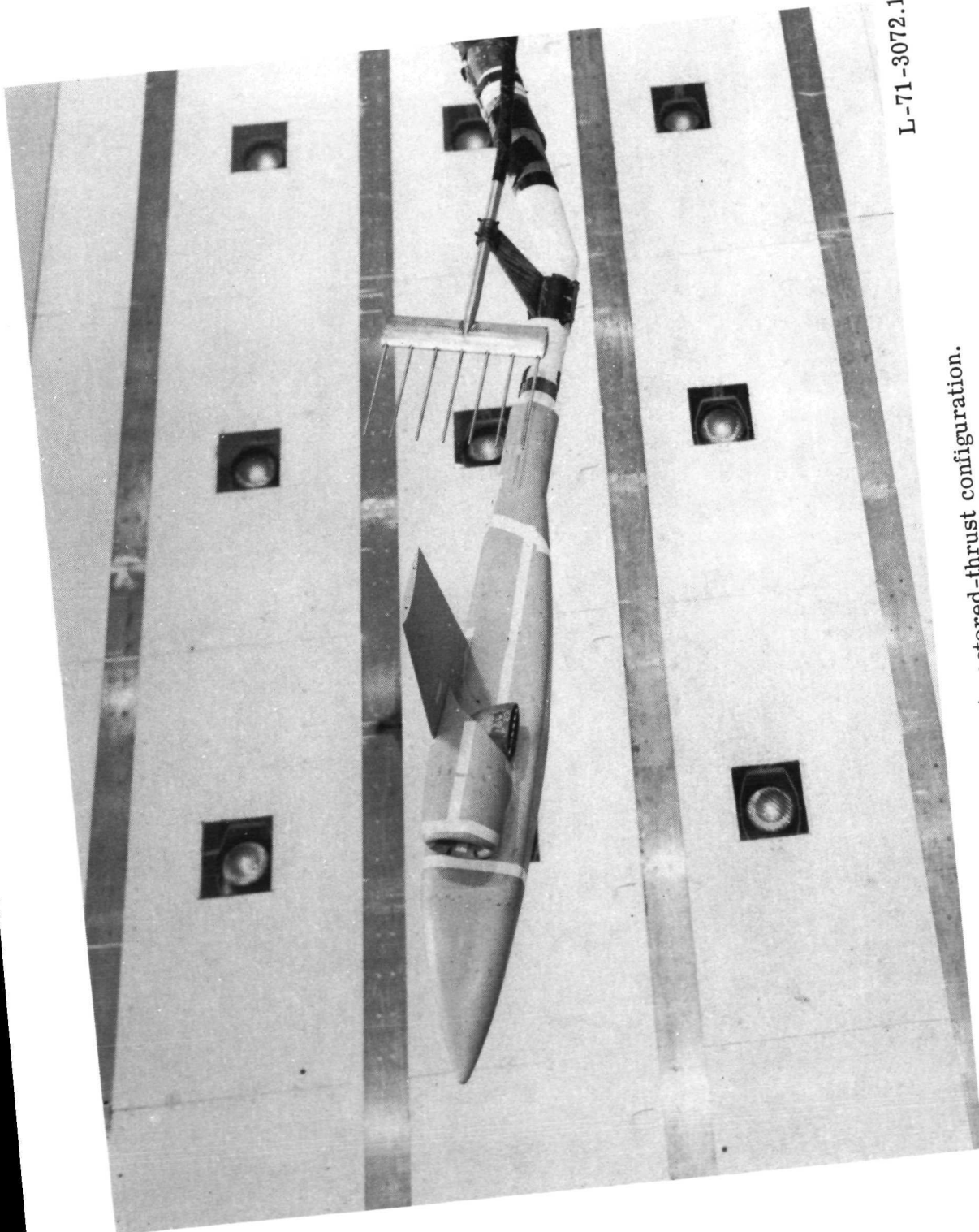


L-71-3220

(a) Lift-jet configuration.

Figure 2. - Model in the V/STOL tunnel.

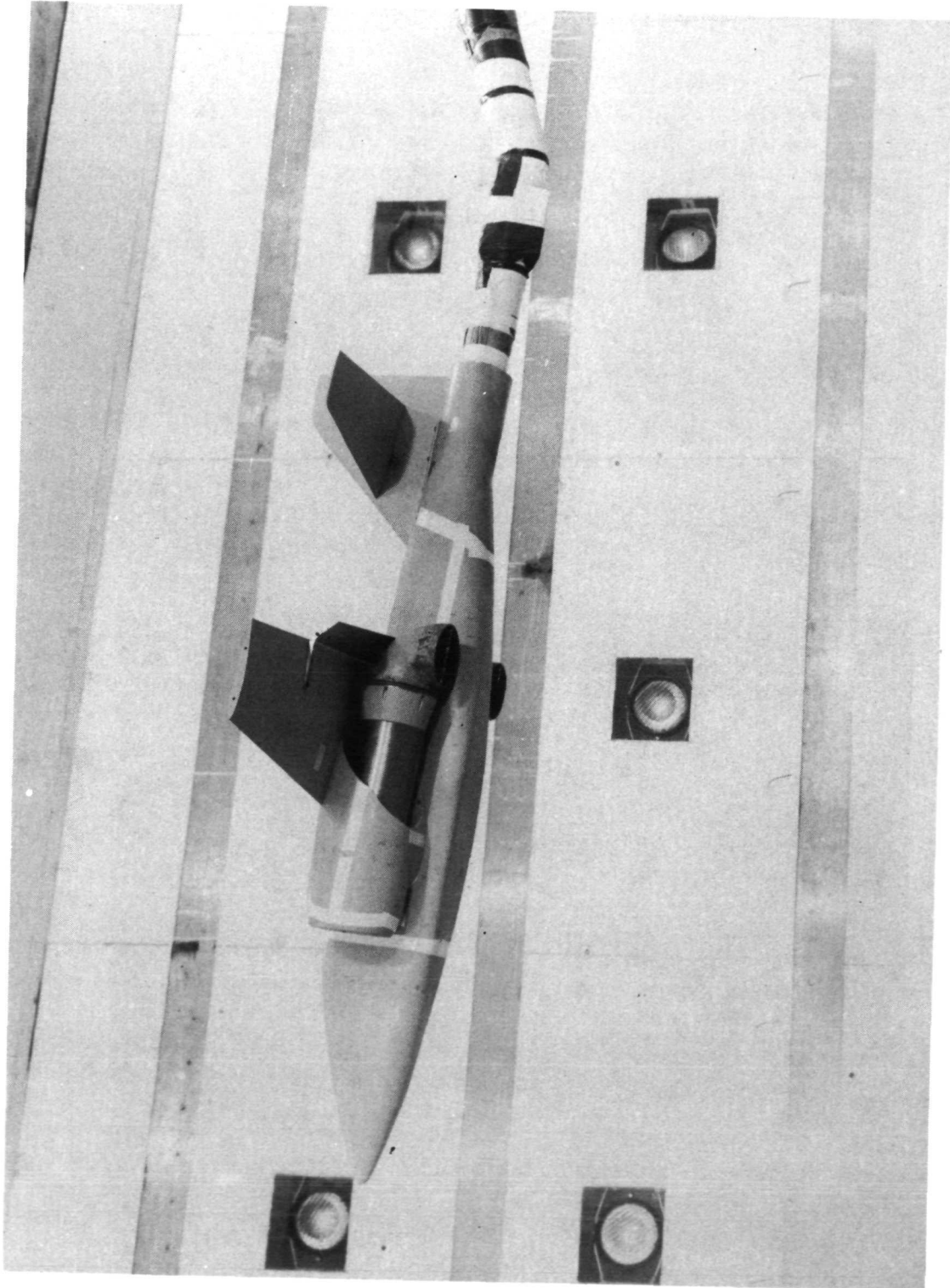




L-71-3072.1

(b) Front vectored-thrust configuration.

Figure 2.- Continued.



(c) Rear vectored-thrust configuration with flaps.  
Figure 2.- Concluded.

L-71-3208

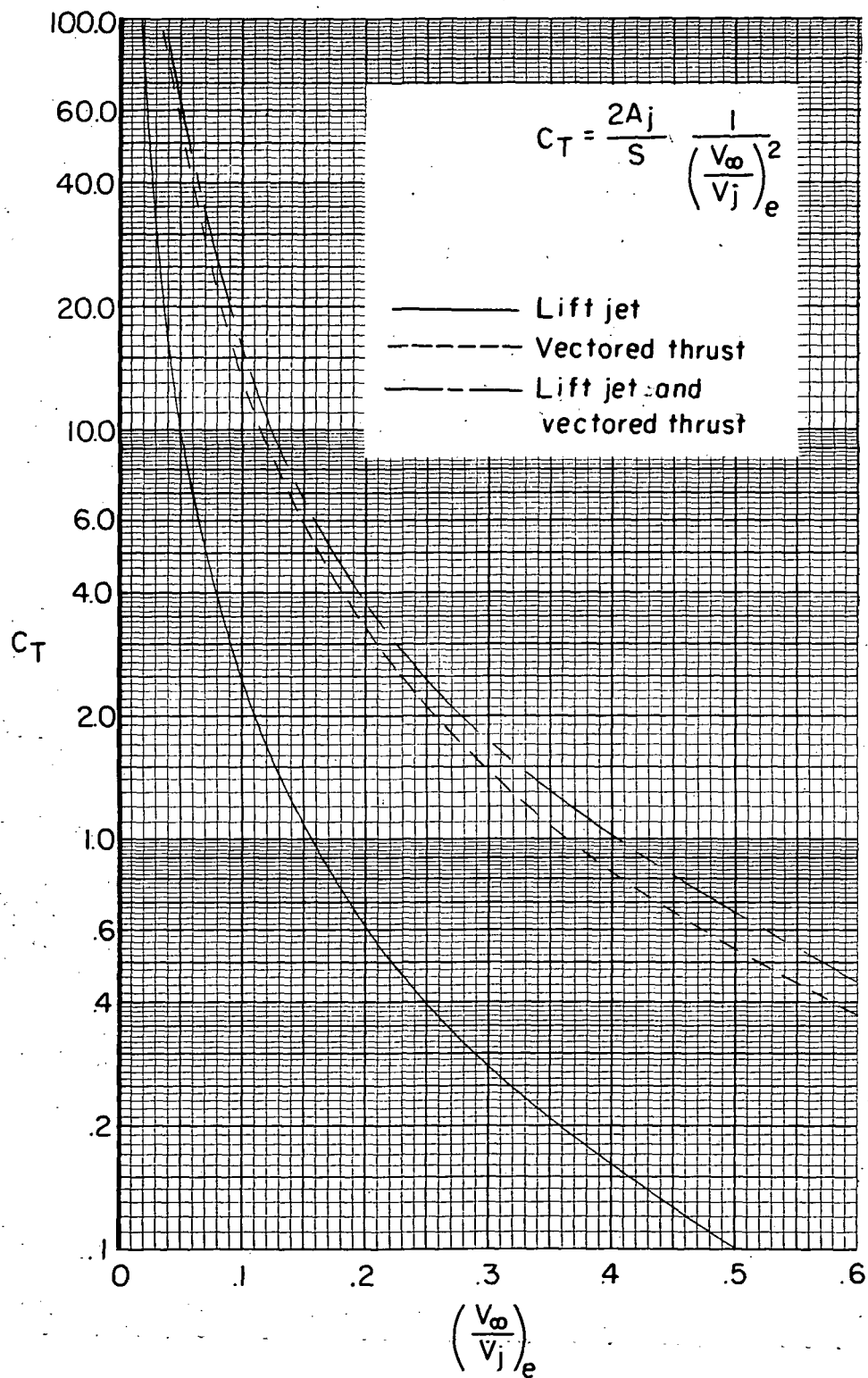
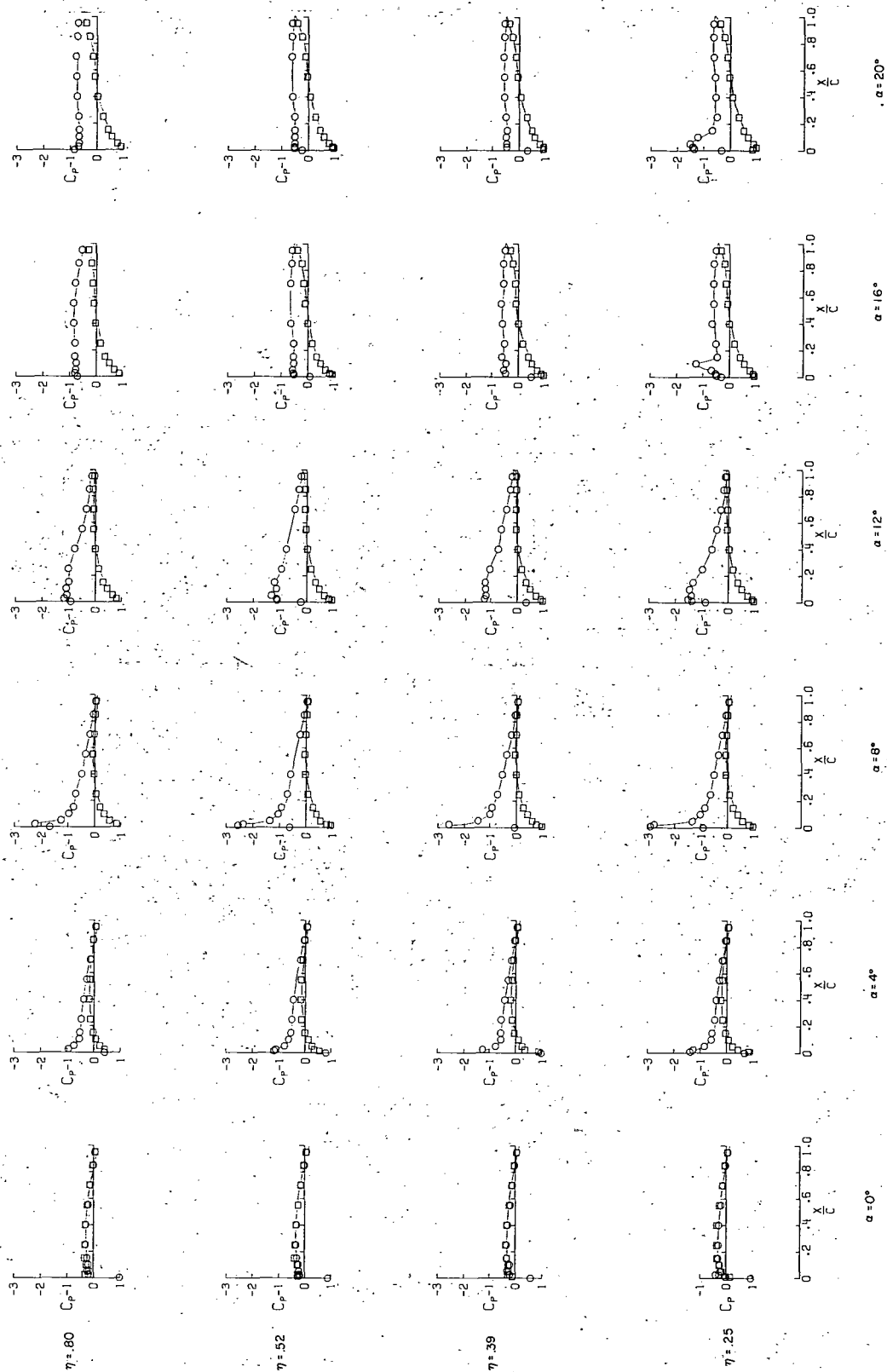
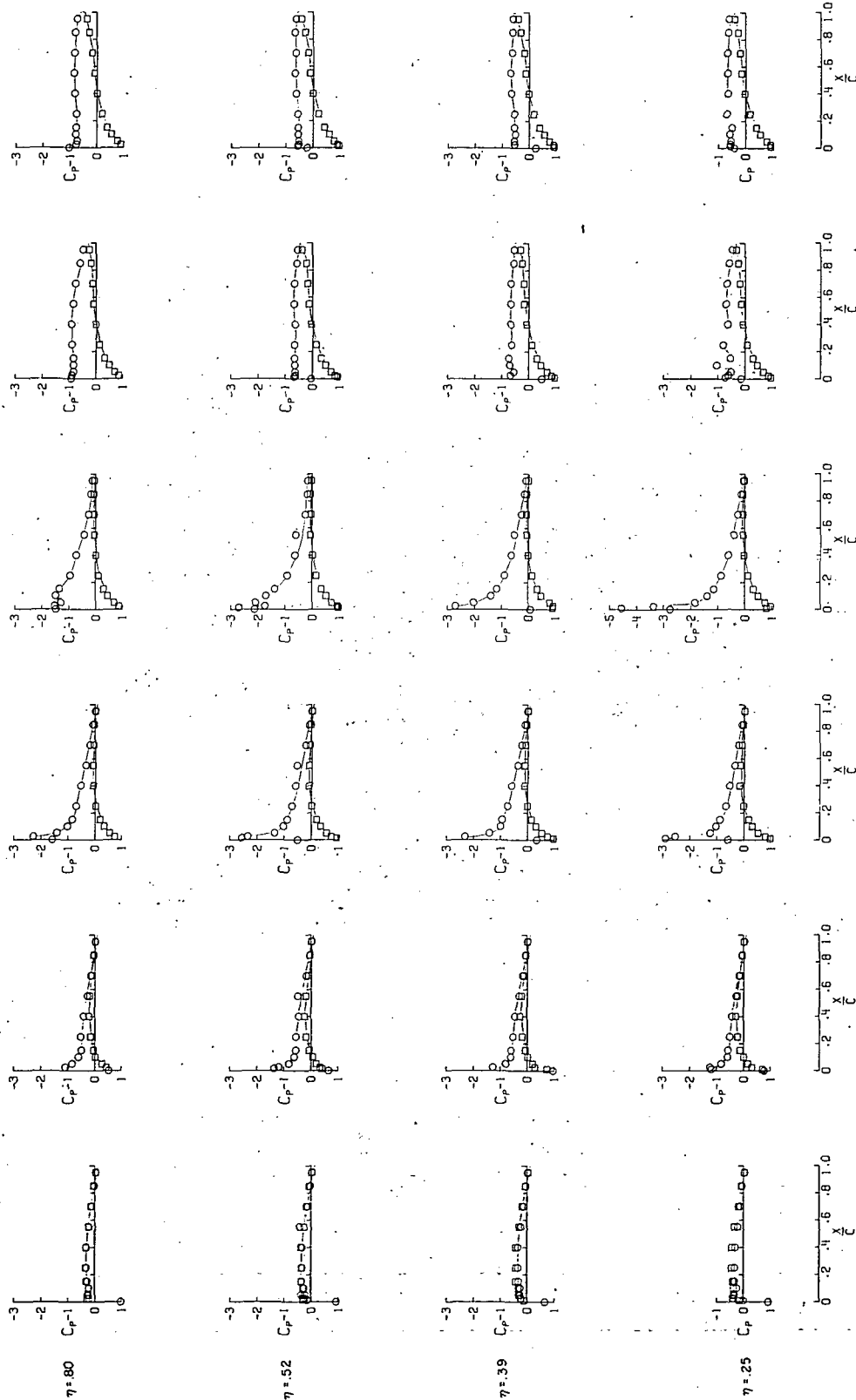
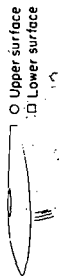


Figure 3.- Variation of thrust coefficient with effective velocity ratio.



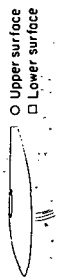
(a)  $(V_\infty/V_j) = \infty$ .

Figure 4.- Pressure distributions on the wing for the lift-jet configuration.

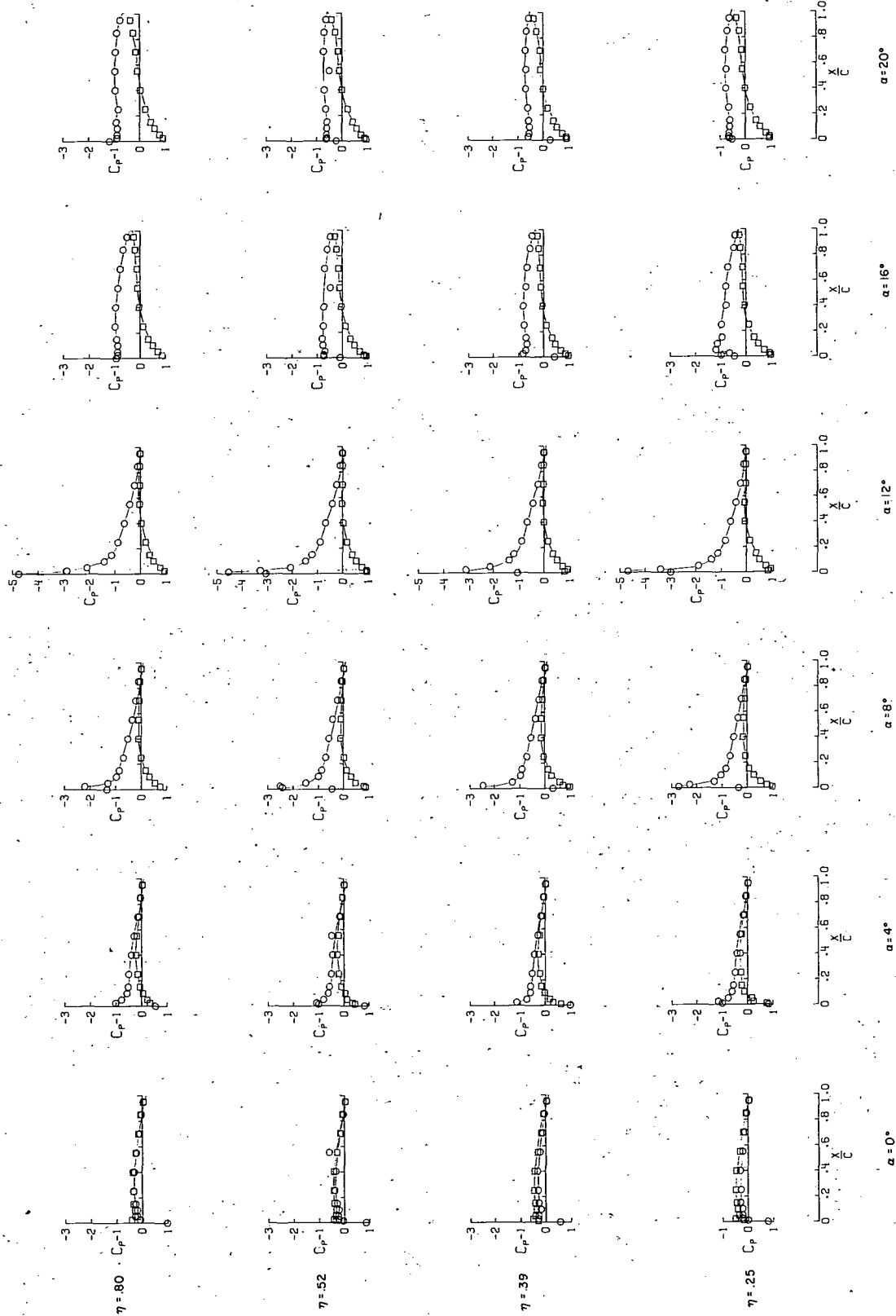


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 4.- Continued.



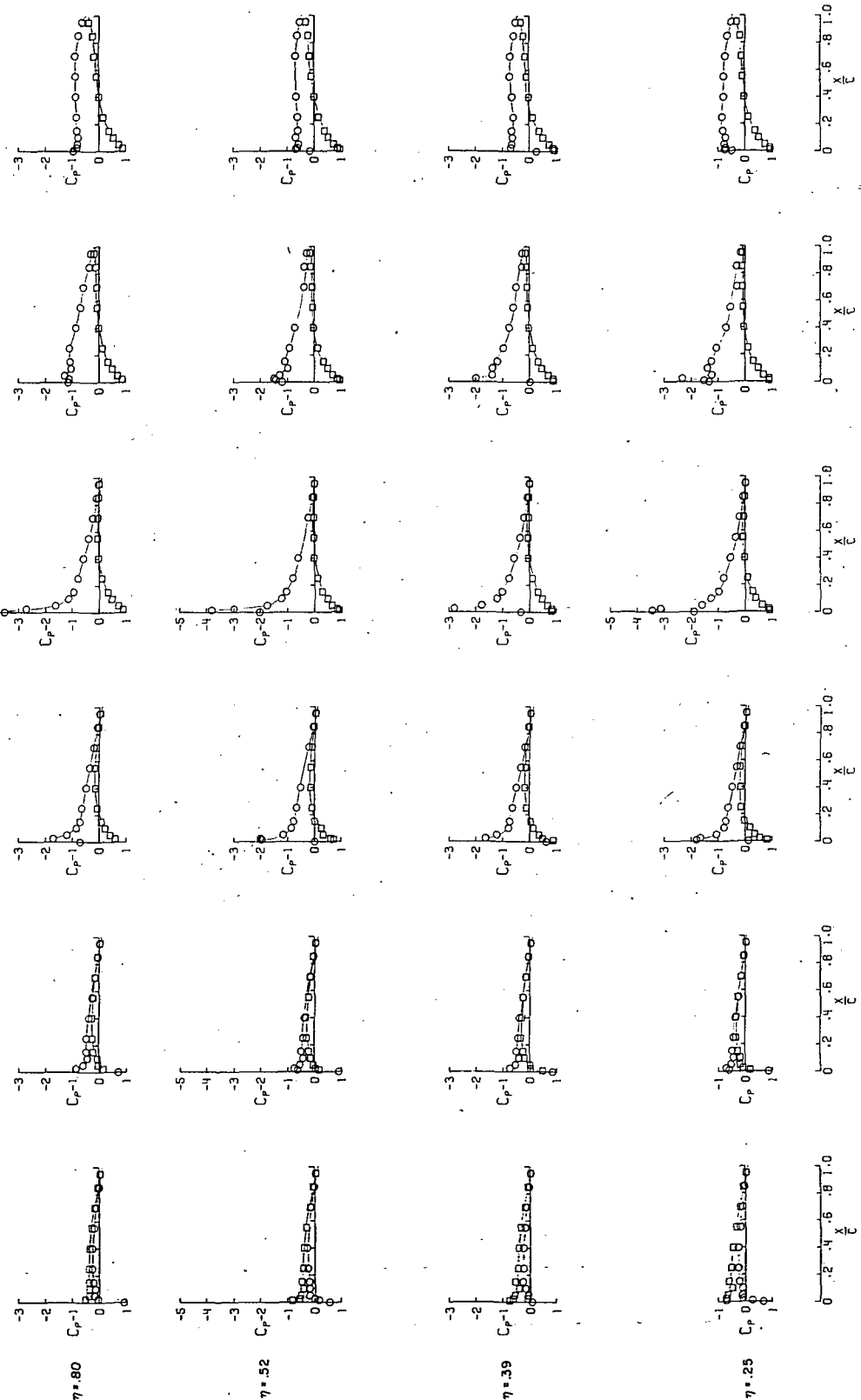
○ Upper surface  
□ Lower surface



(c)  $(V_\infty/V_j)_e \approx 0.2$

Figure 4.- Continued.

○ Upper surface  
□ Lower surface



(d)  $(V_{\infty}/V_j)_e \approx 0.1$ .

Figure 4.- Concluded.

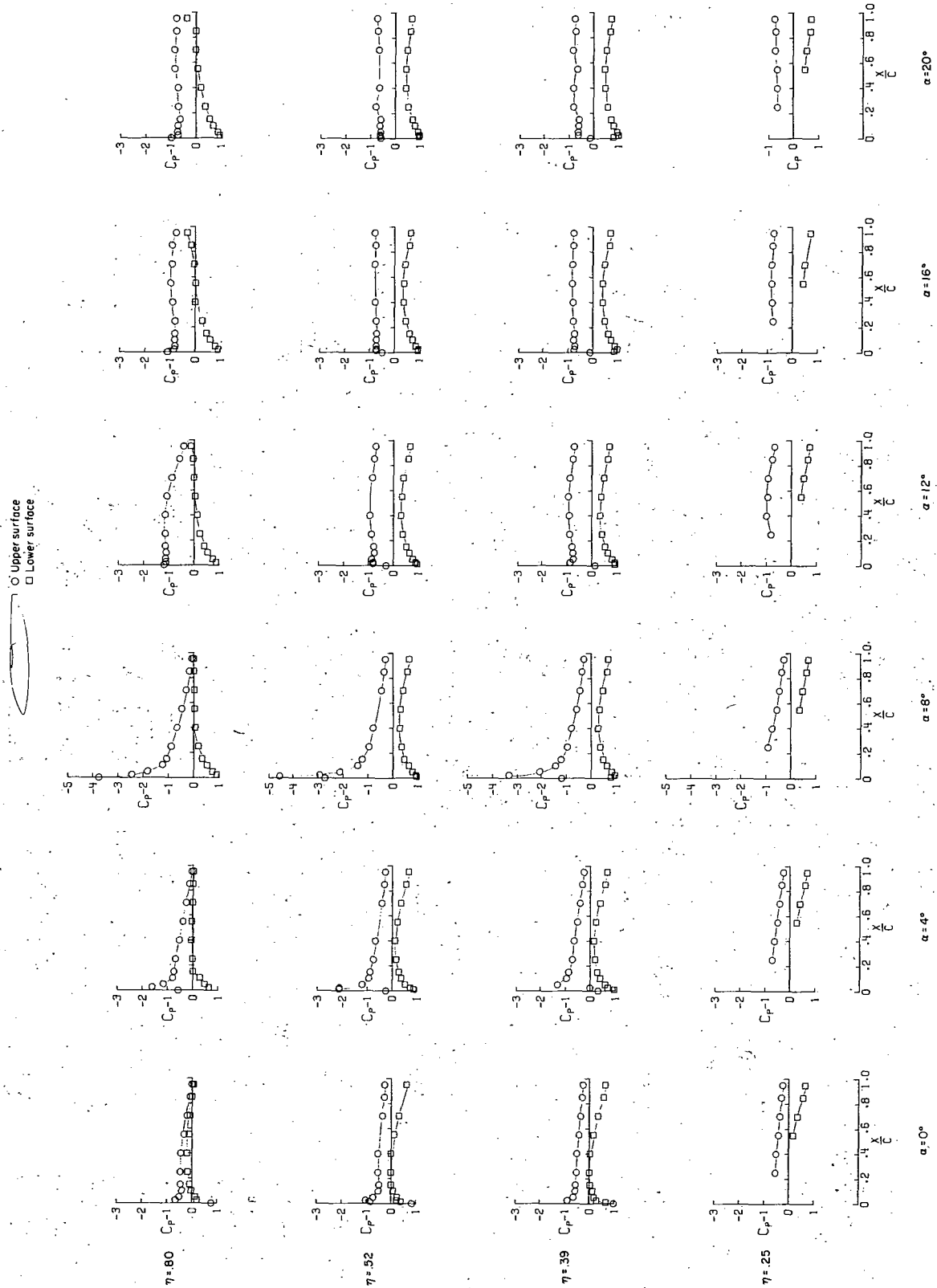
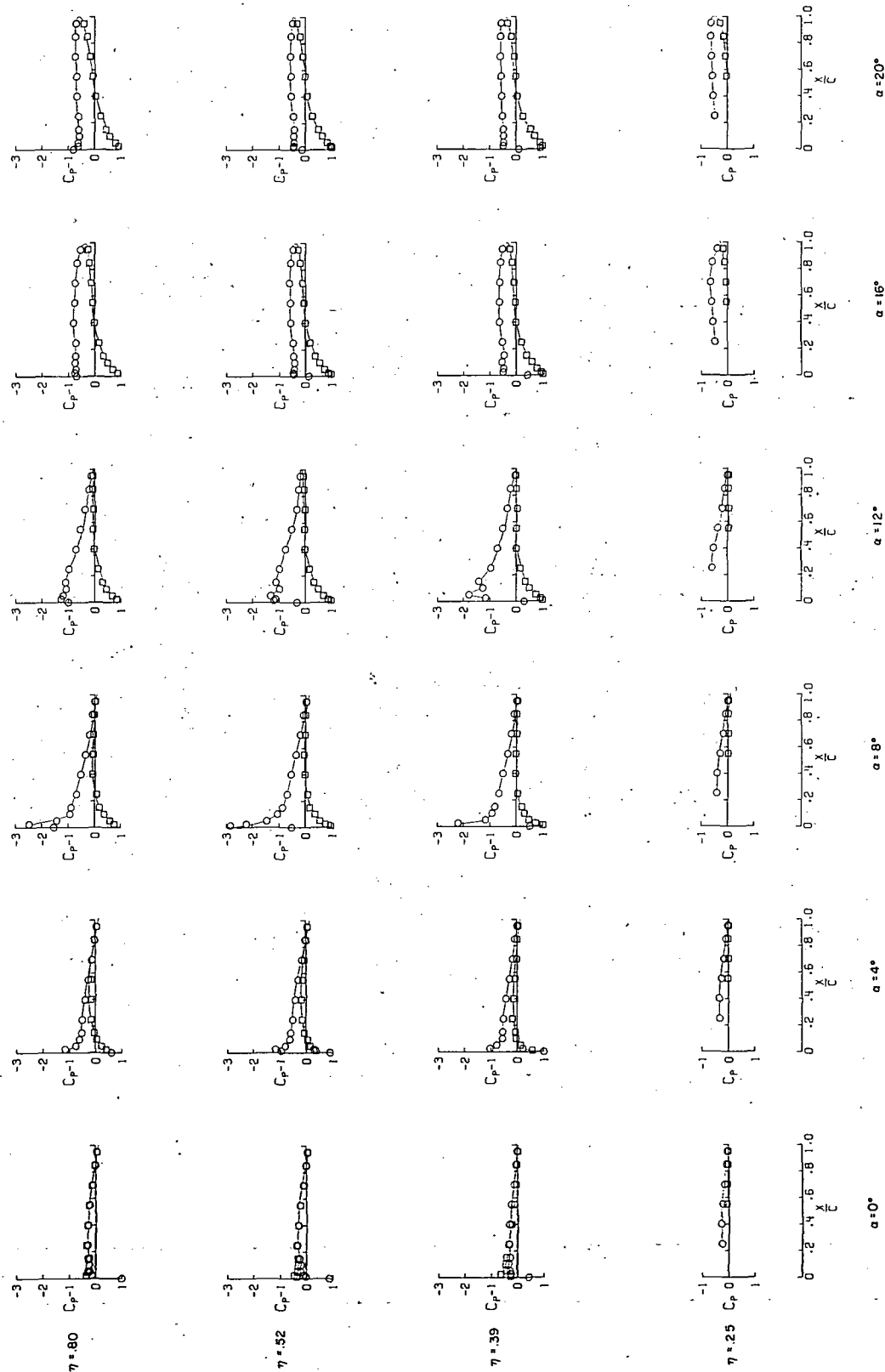


Figure 5.- Pressure distributions on the wing with flaps for the lift-jet configuration.  $(V_\infty/V_j)_e \approx \infty$ .



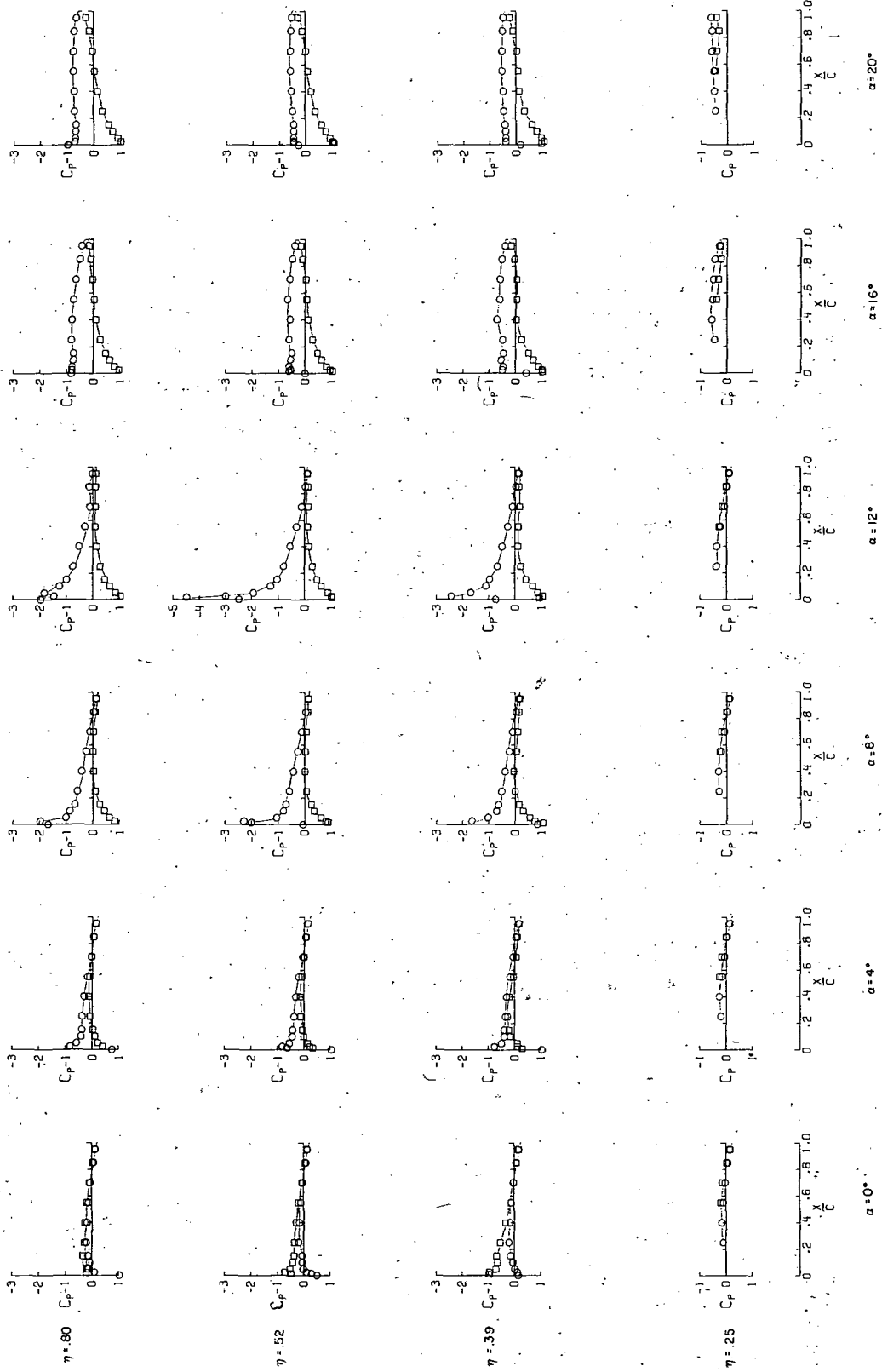
○ Upper surface  
□ Lower surface



(a)  $(V_\infty/V_i)_e \approx \infty$

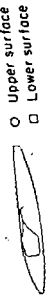
Figure 6.- Pressure distributions on the wing for the 0° nozzle configuration.

○ Upper surface  
□ Lower surface

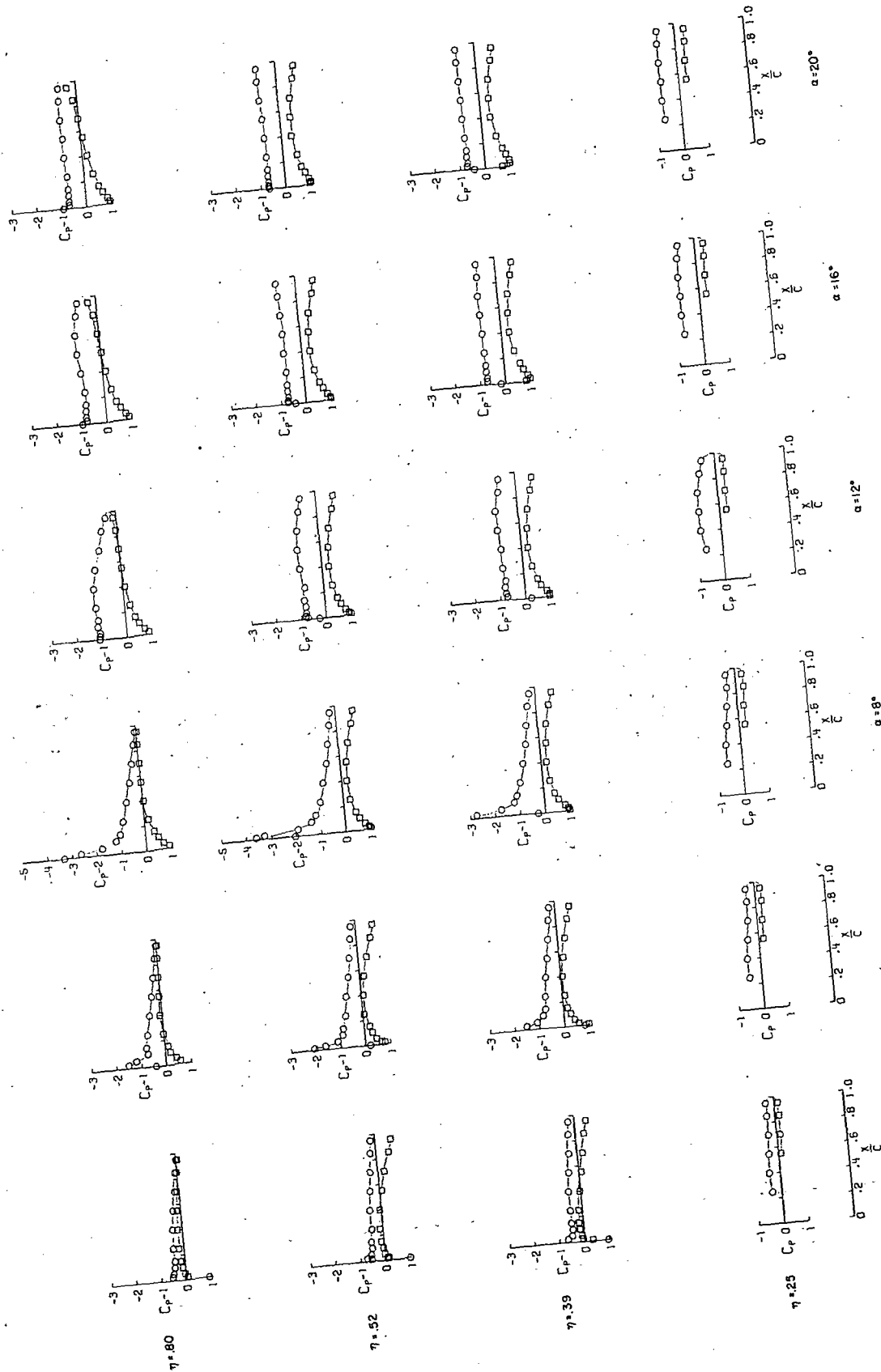


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 6.- Concluded.

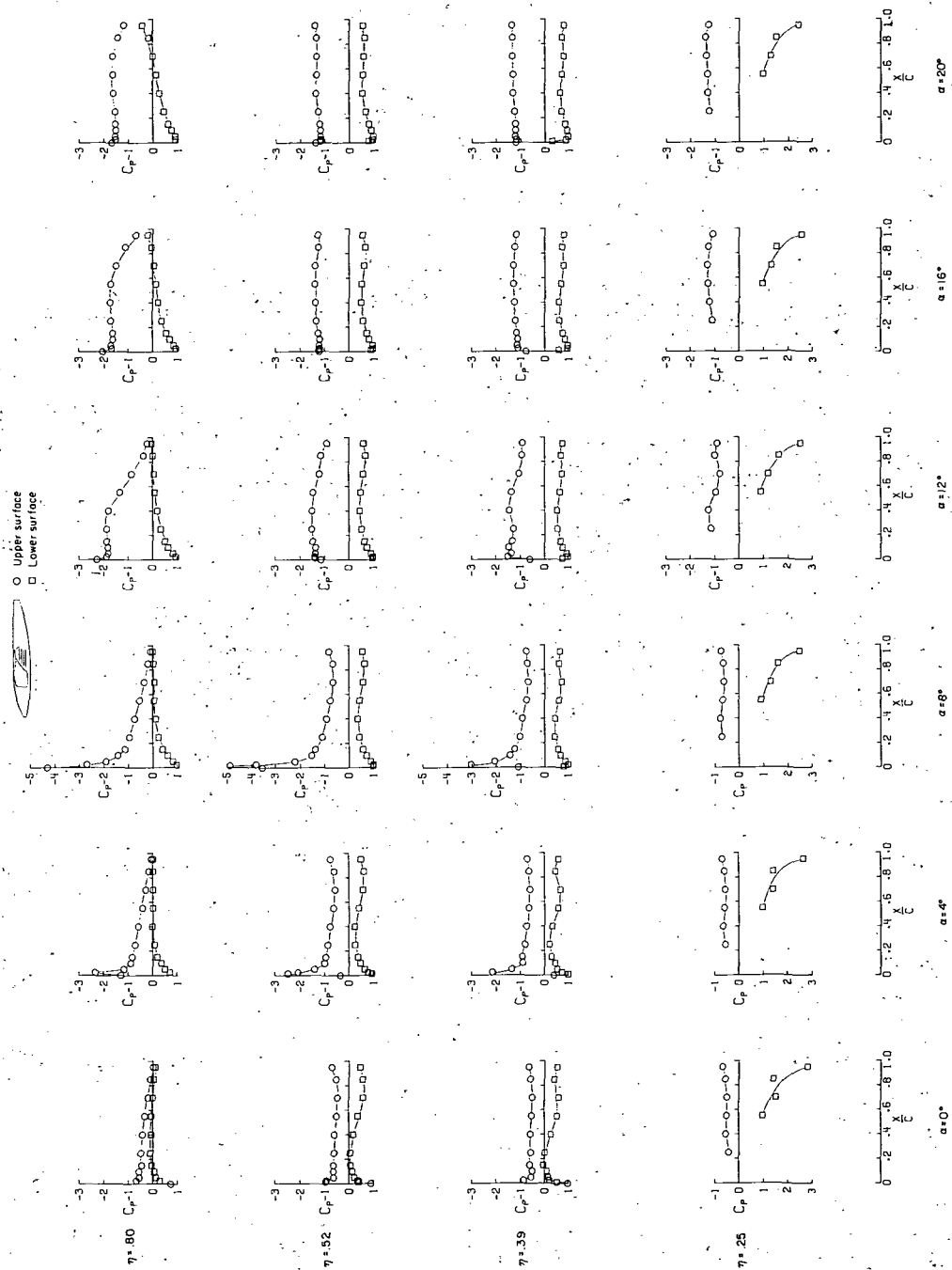


○ Upper surface  
□ Lower surface



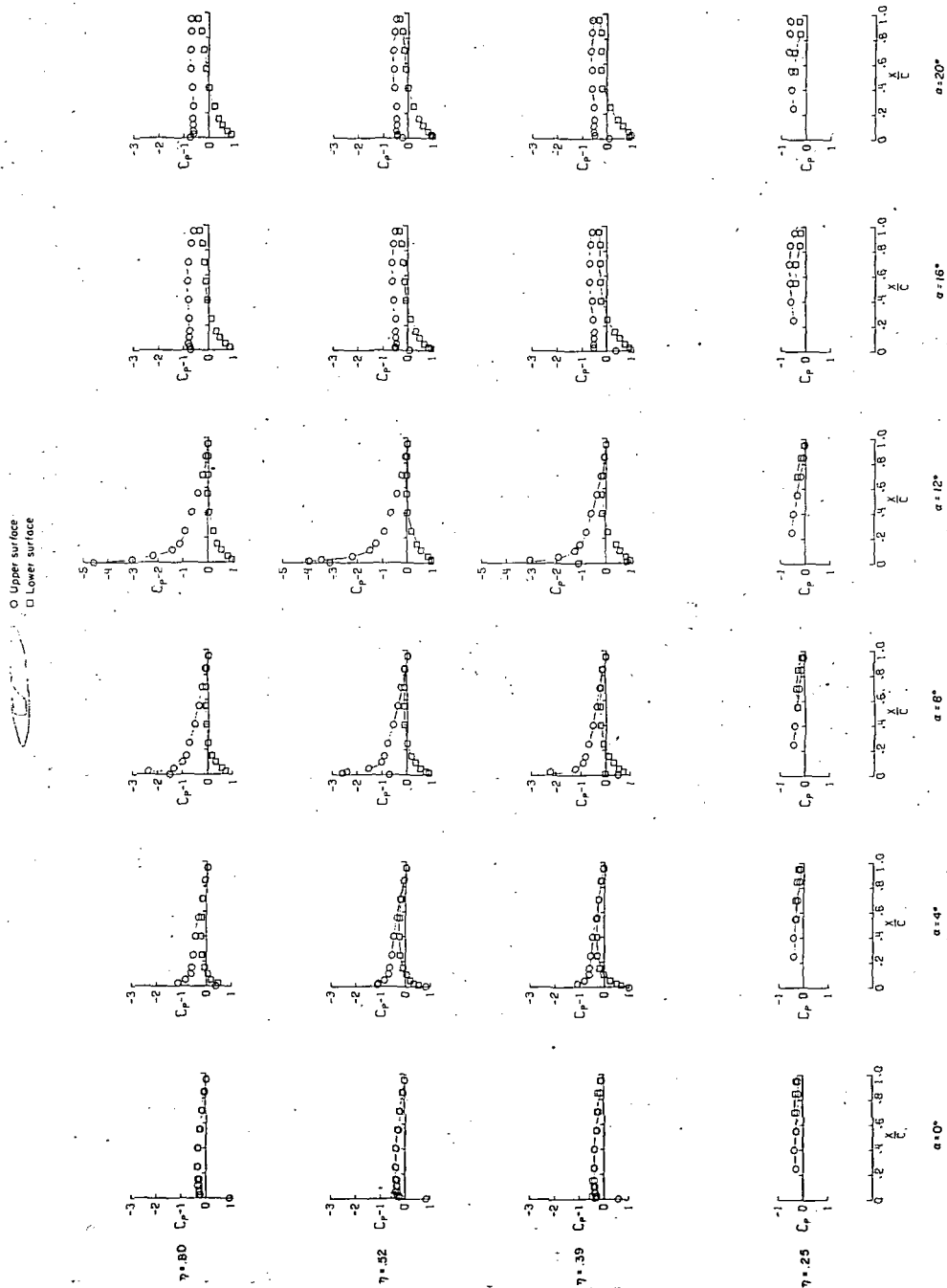
(a)  $(V_\infty/V_i)_e \approx \infty$ .

Figure 7.- Pressure distributions on the wing with flaps for the forward  $0^\circ$  nozzle configuration.



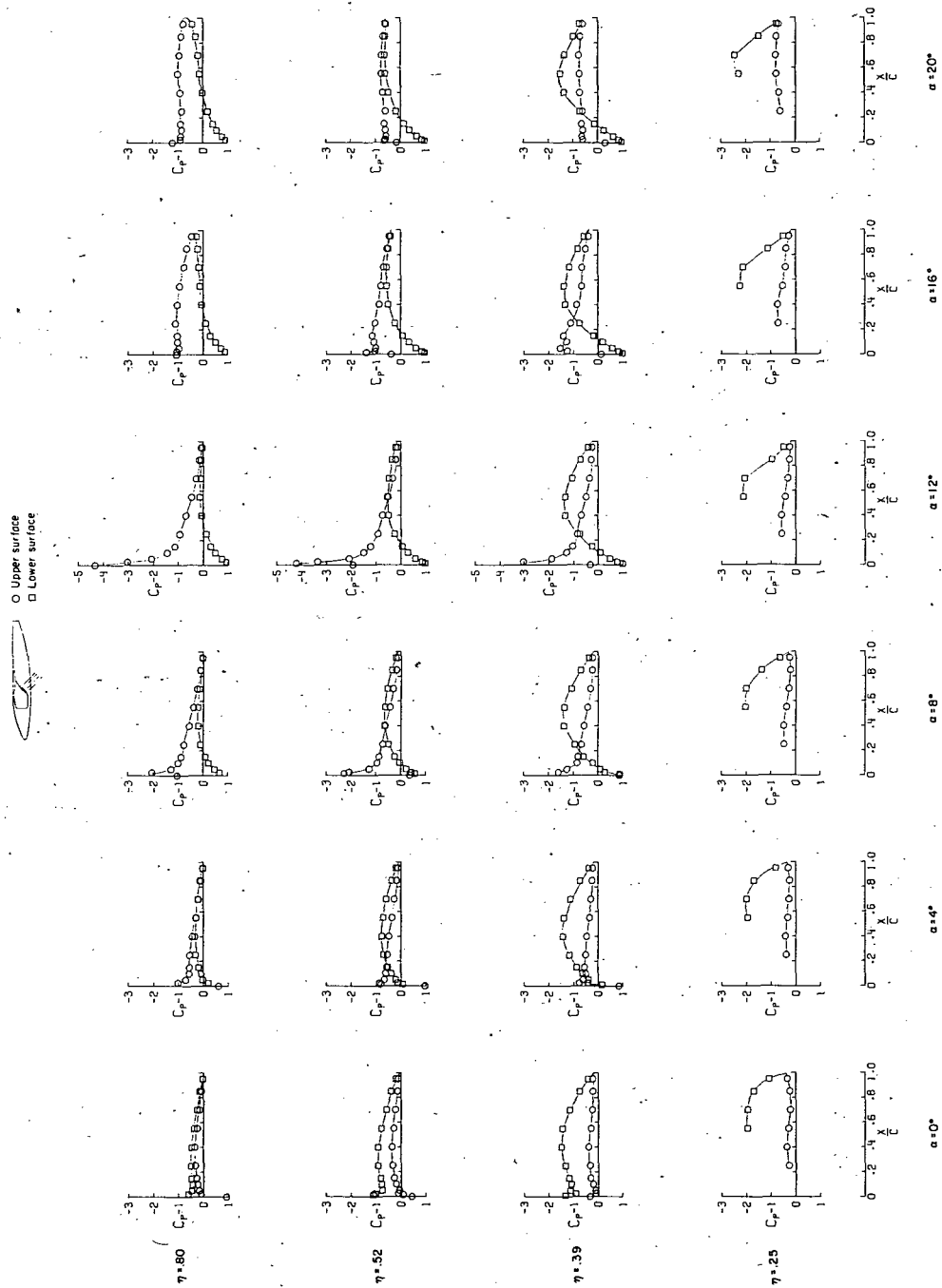
(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 7.- Concluded.



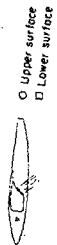
(a)  $(V_\infty/V_{j_e})_e \approx \infty$ .

Figure 8.- Pressure distributions on the wing for the forward 45° nozzle configuration.

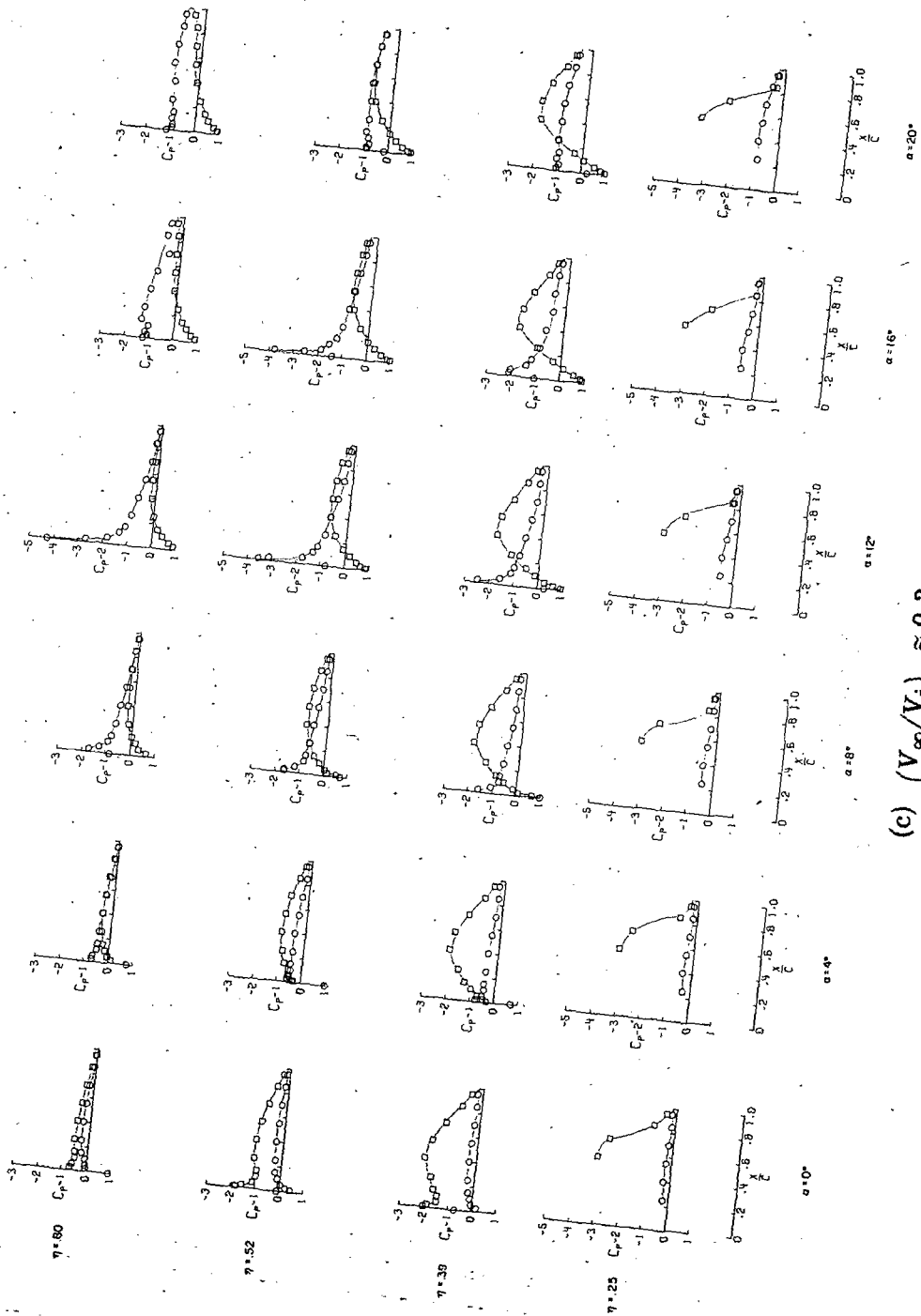


(b)  $(V_\infty/V_{j_e}) \approx 0.3$ .

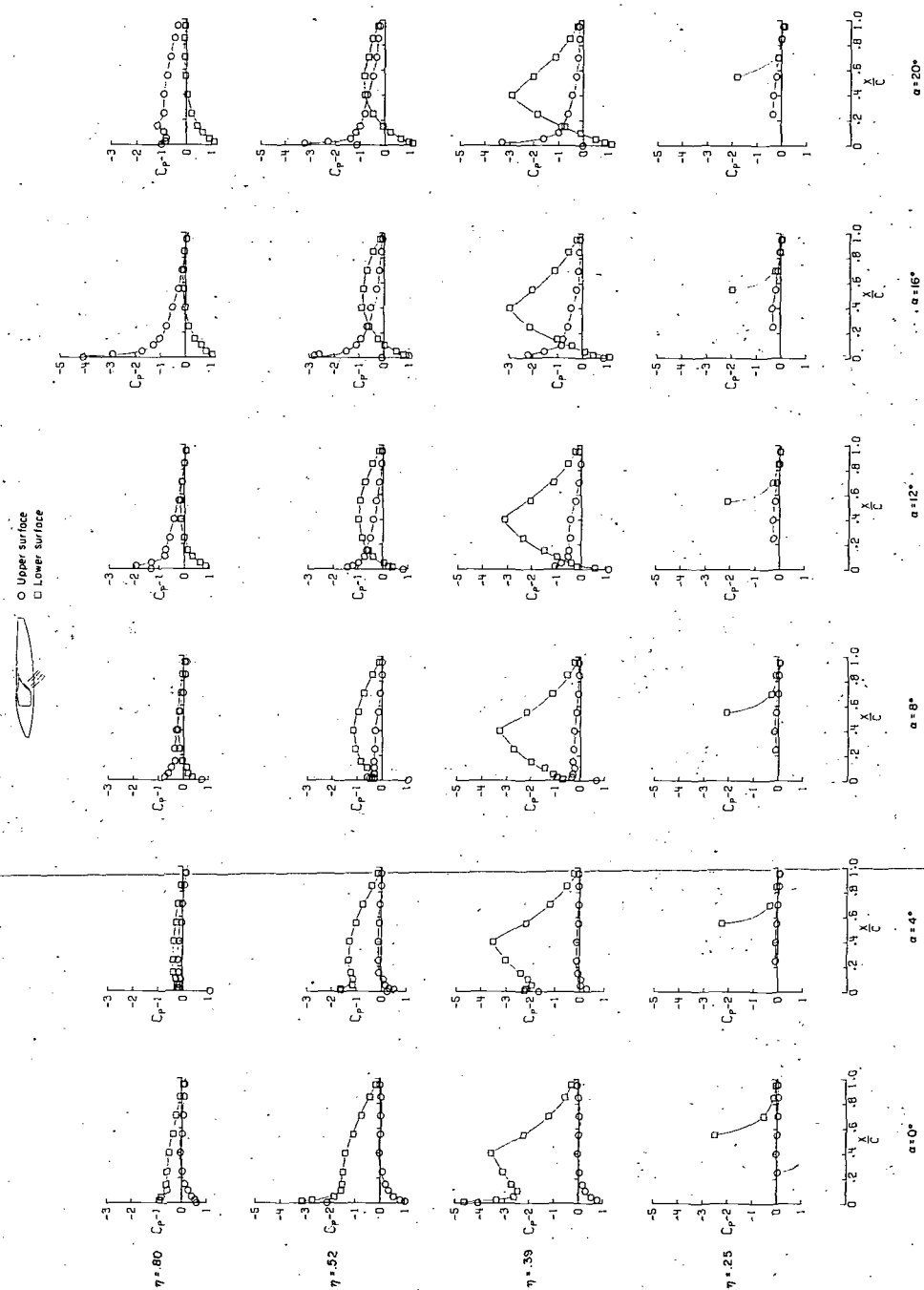
Figure 8.- Continued.



○ Upper surface  
□ Lower surface



(c)  $(V_{\infty}/V_j)_e \approx 0.2$ .  
Figure 8.- Continued.

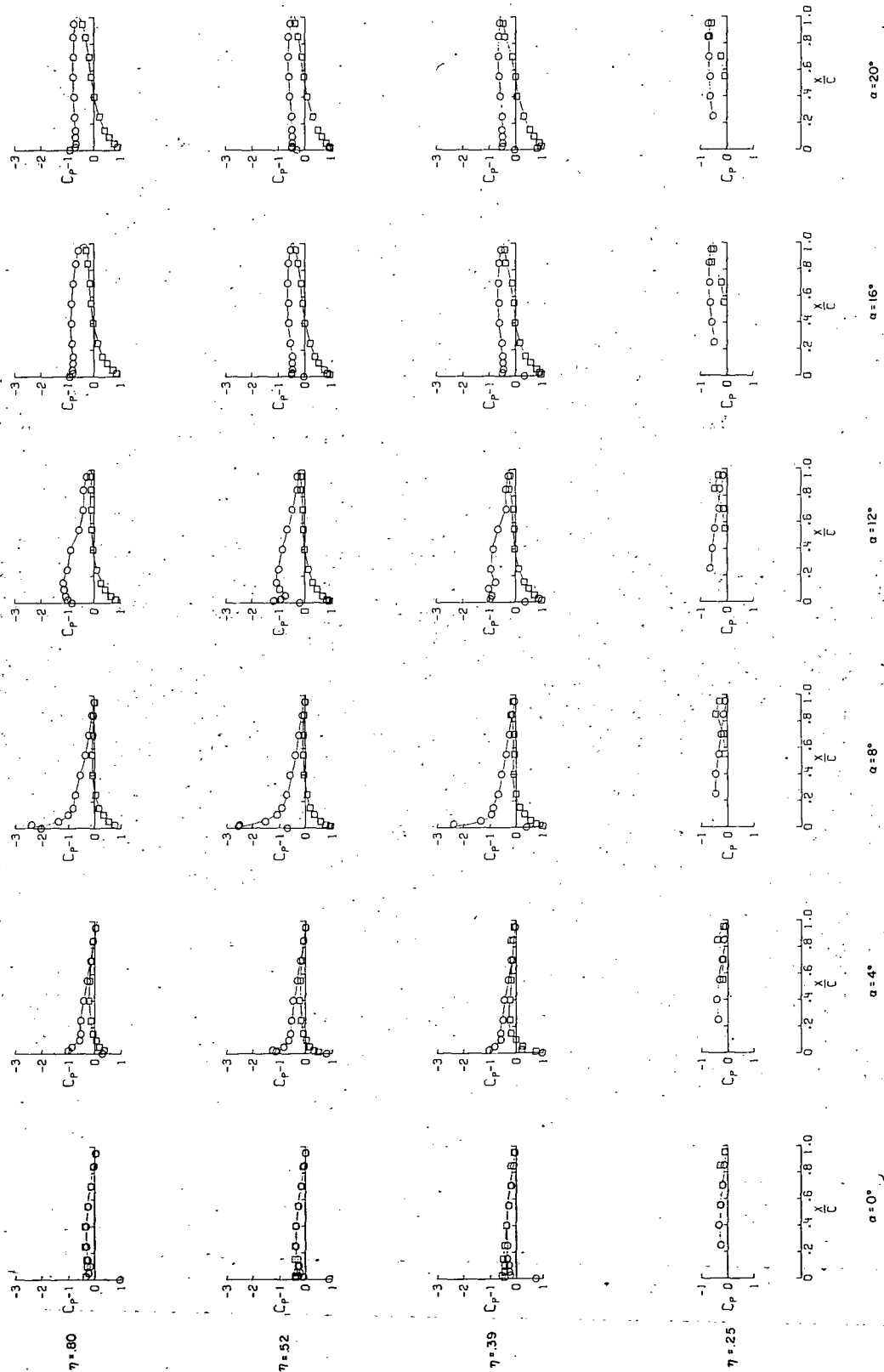


(d)  $(V_\infty/V_{j_e}) \approx 0.1$ .

Figure 8.- Concluded.



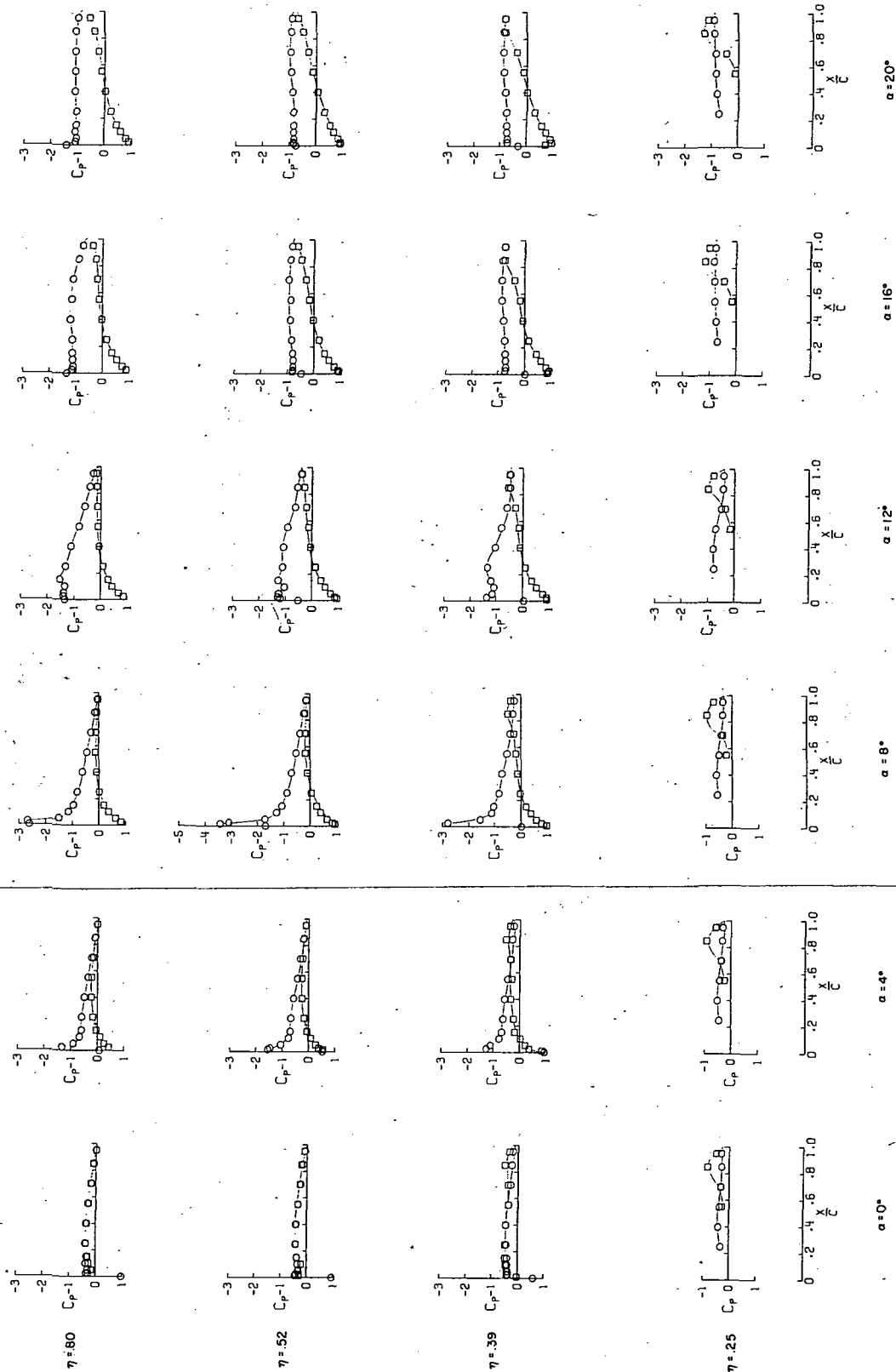
○ Upper surface  
□ Lower surface



(a)  $(V_\infty/V_j)_e \approx \infty$ .

Figure 9.- Pressure distributions on the wing for the rear 45° nozzle configuration.

○ Upper surface  
□ Lower surface

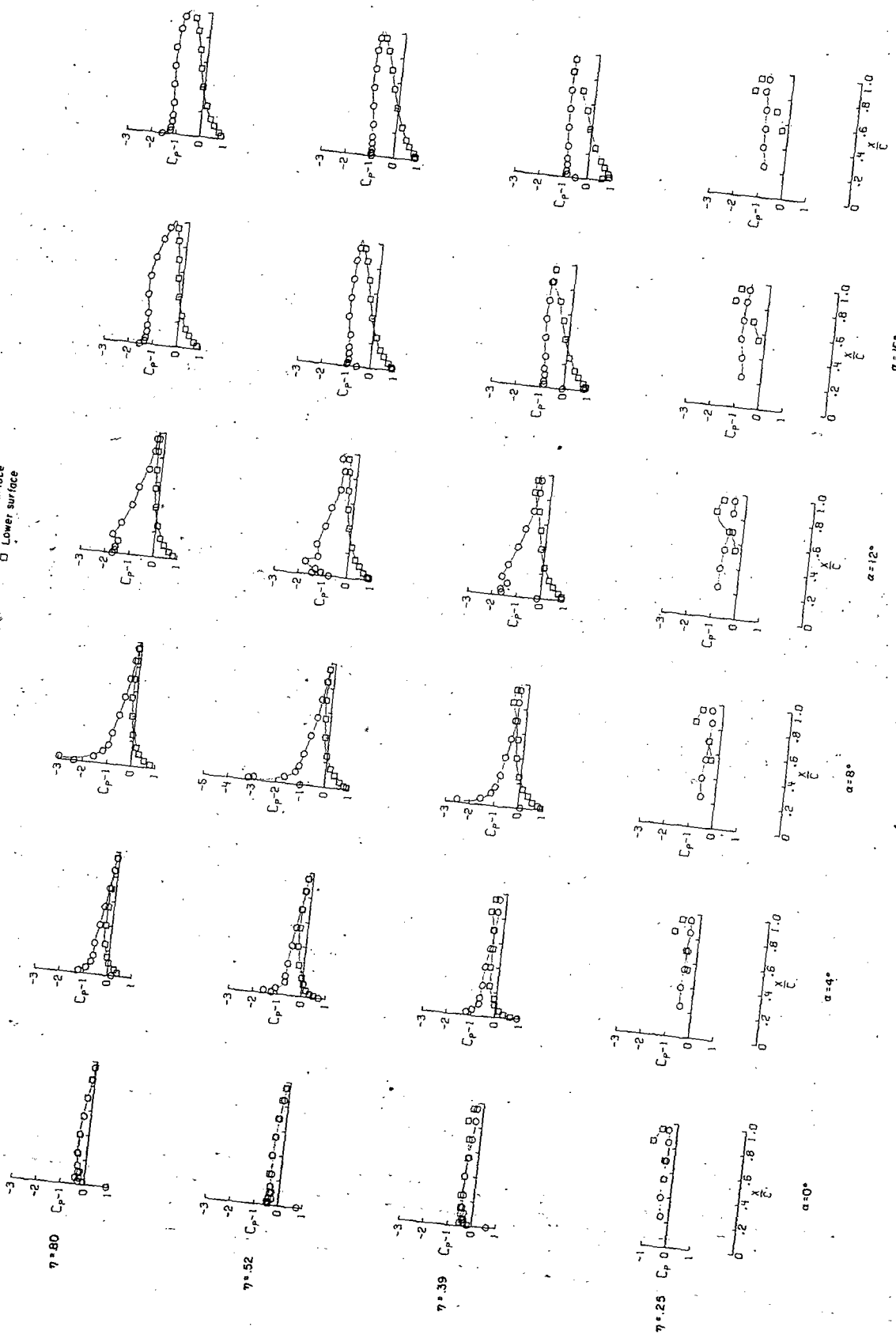


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

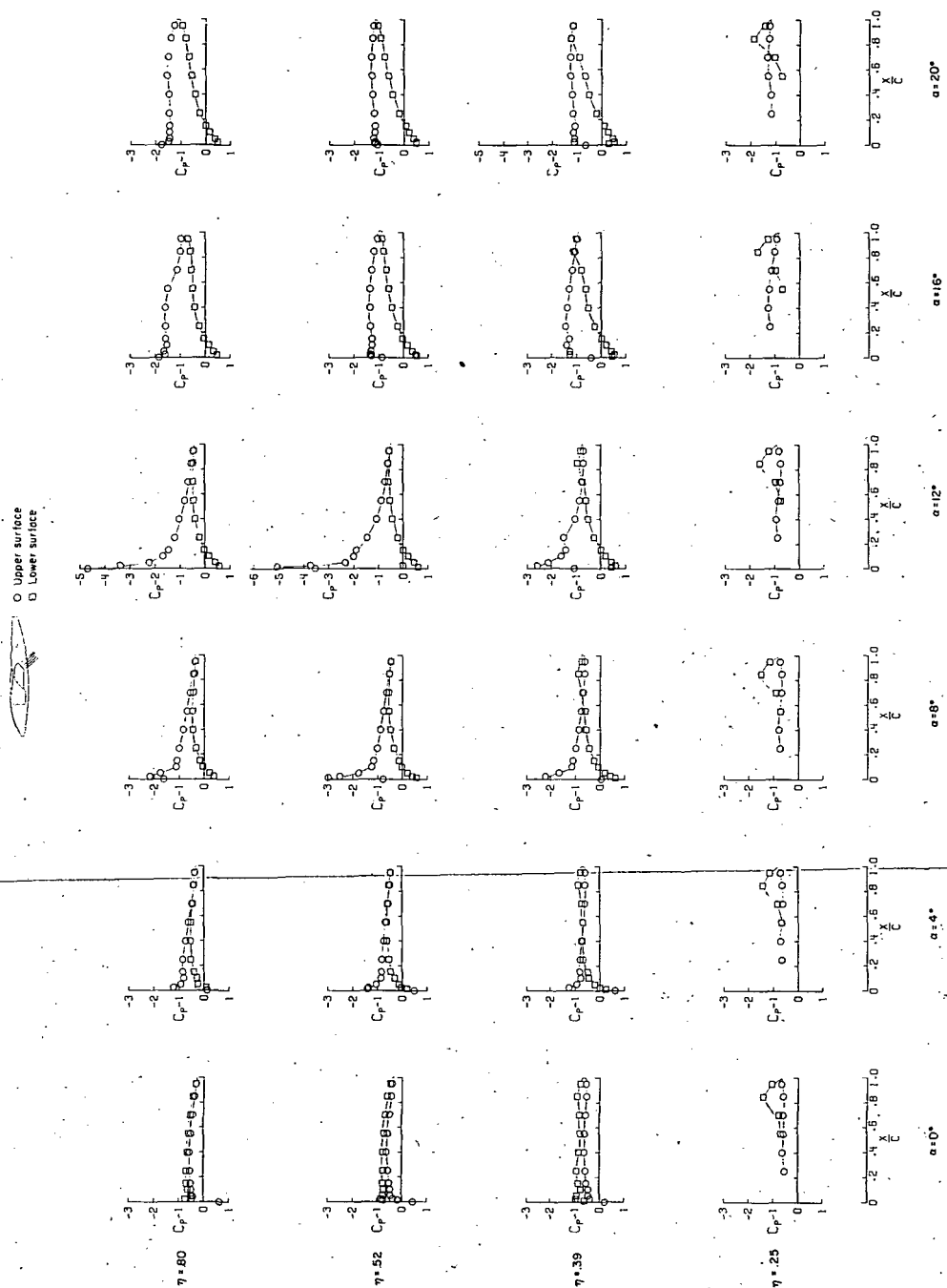
Figure 9.- Continued.



○ Upper surface  
□ Lower surface

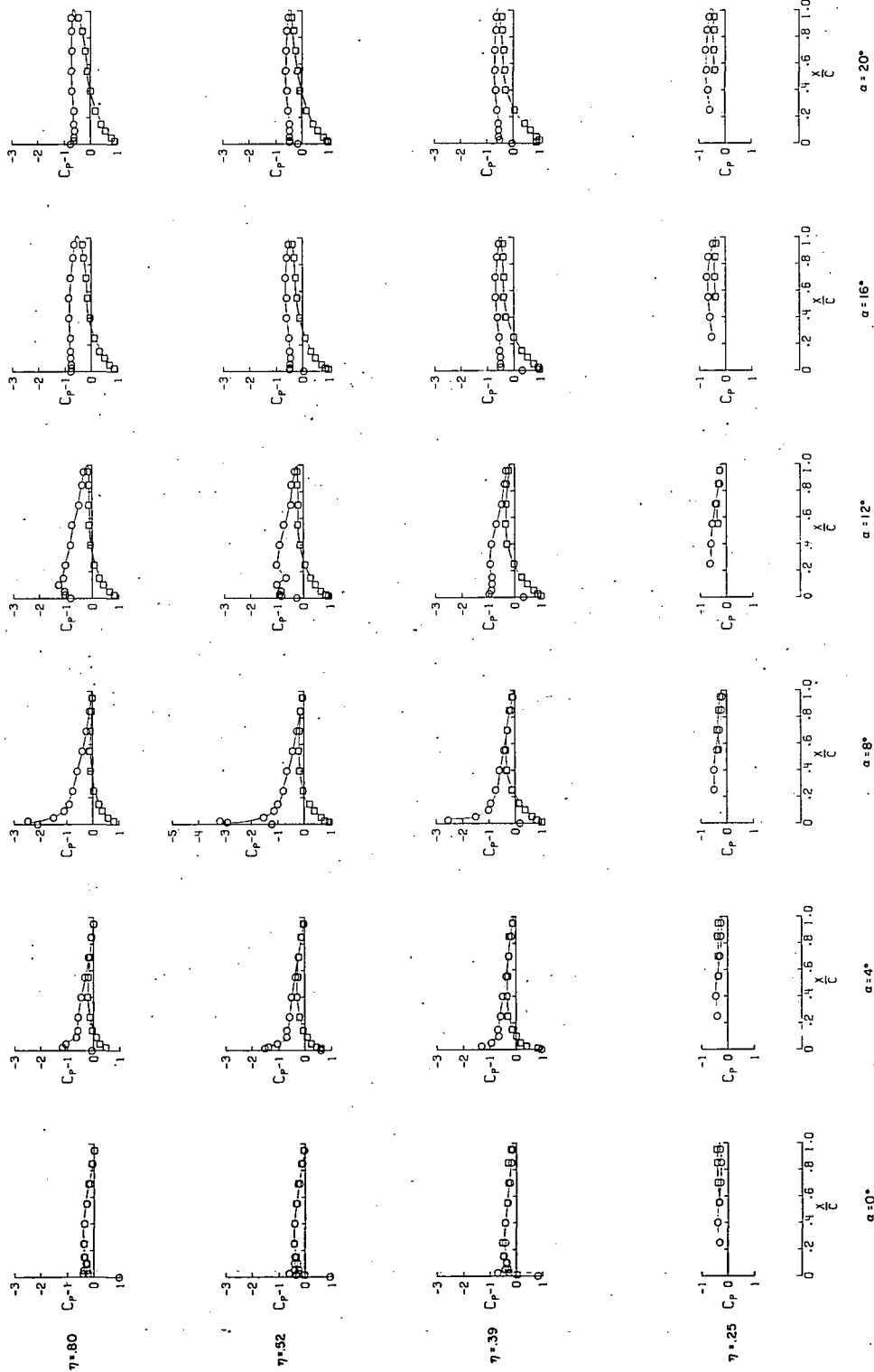


(c)  $(V_\infty/V_j)_e \approx 0.2$ .  
Figure 9.- Continued.



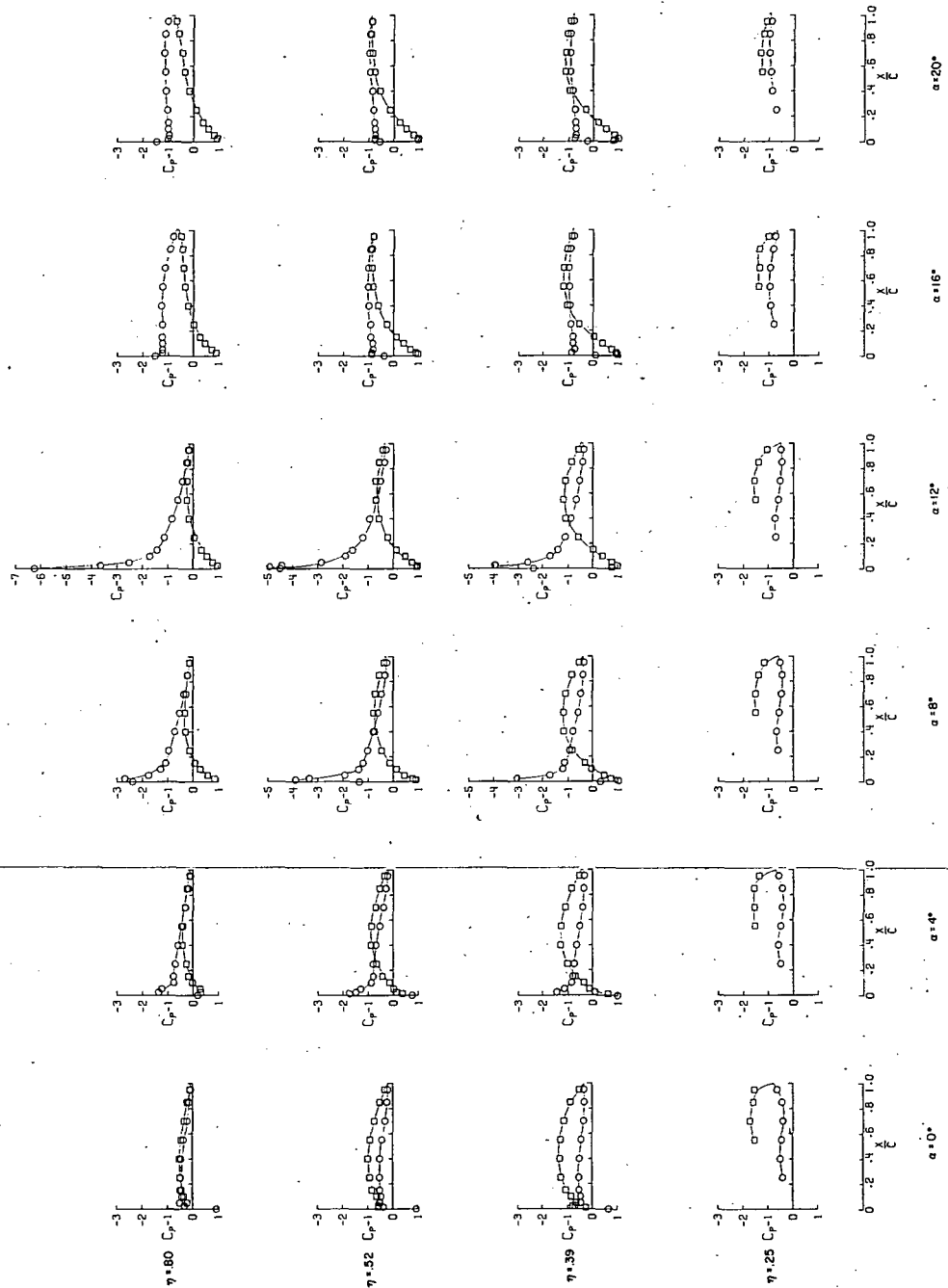
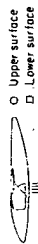
(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 9. - Concluded.



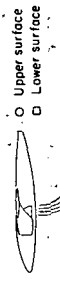
(a)  $(V_\infty/V_j)_e \approx \infty$ .

Figure 10.- Pressure distributions on the wing for the forward 90° nozzle configuration.

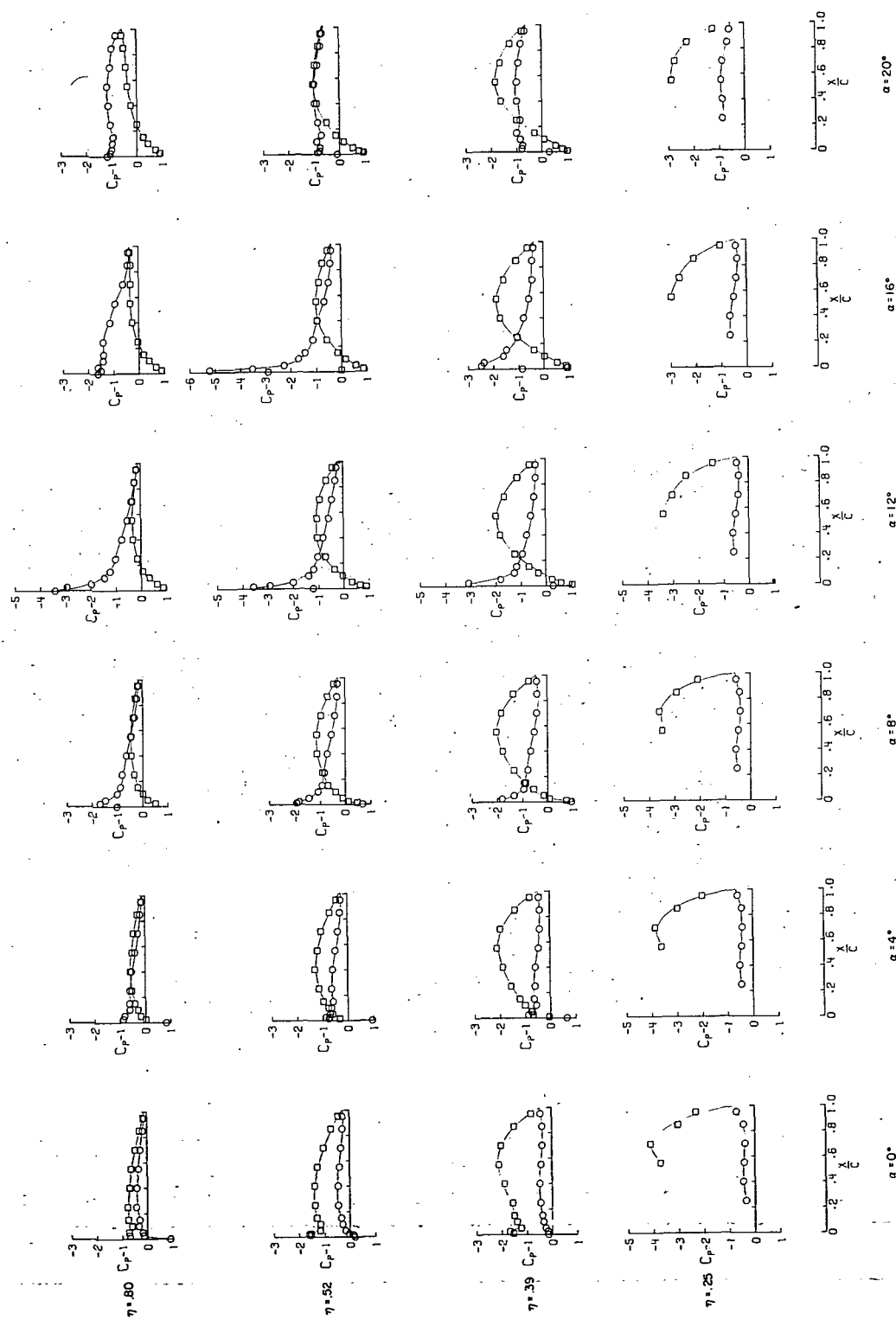


(b)  $(V_\infty/V_i)_e \approx 0.3$ .

Figure 10.- Continued.

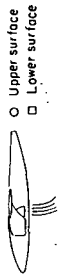


○ Upper surface  
□ Lower surface

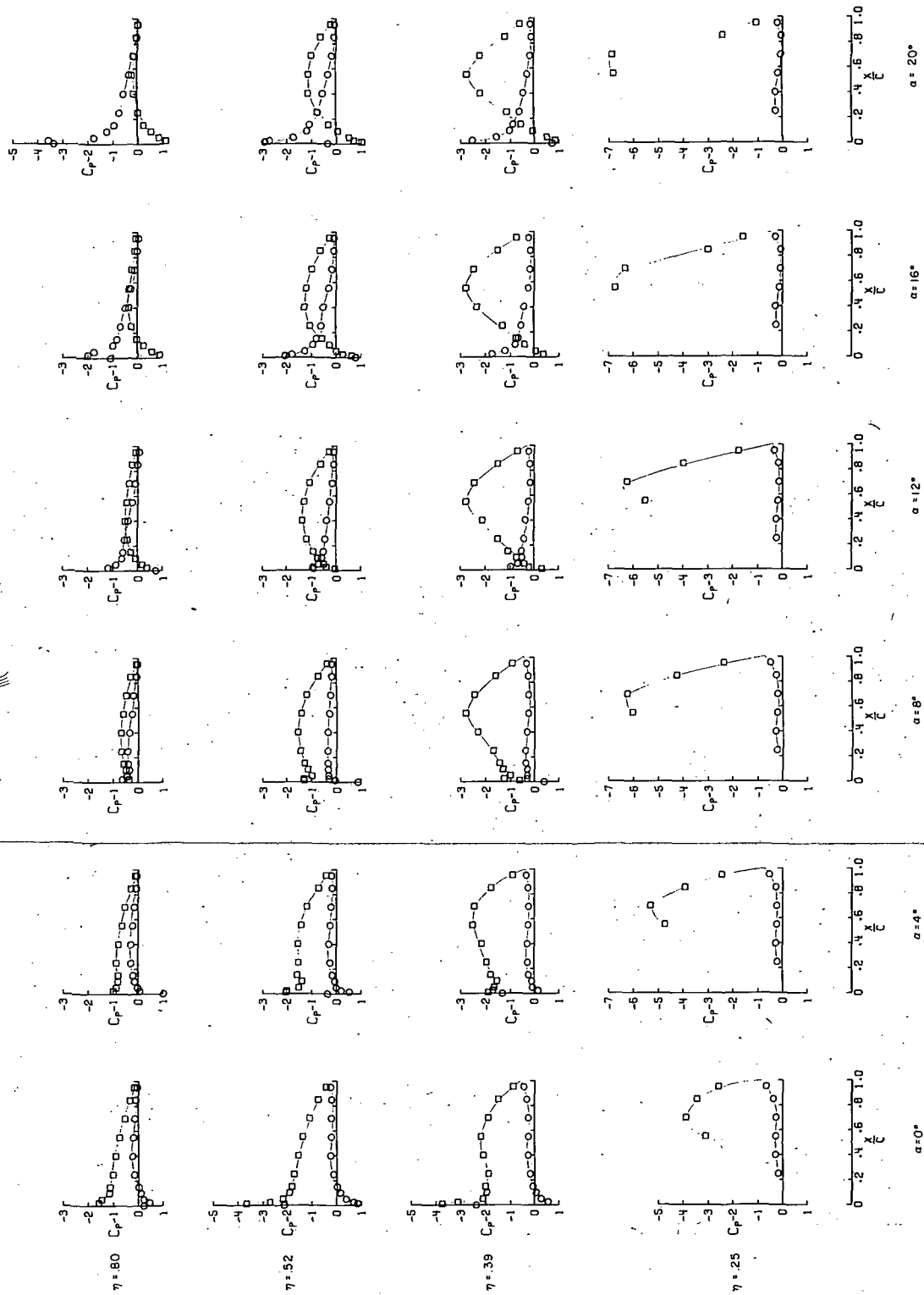


(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 10.- Continued.

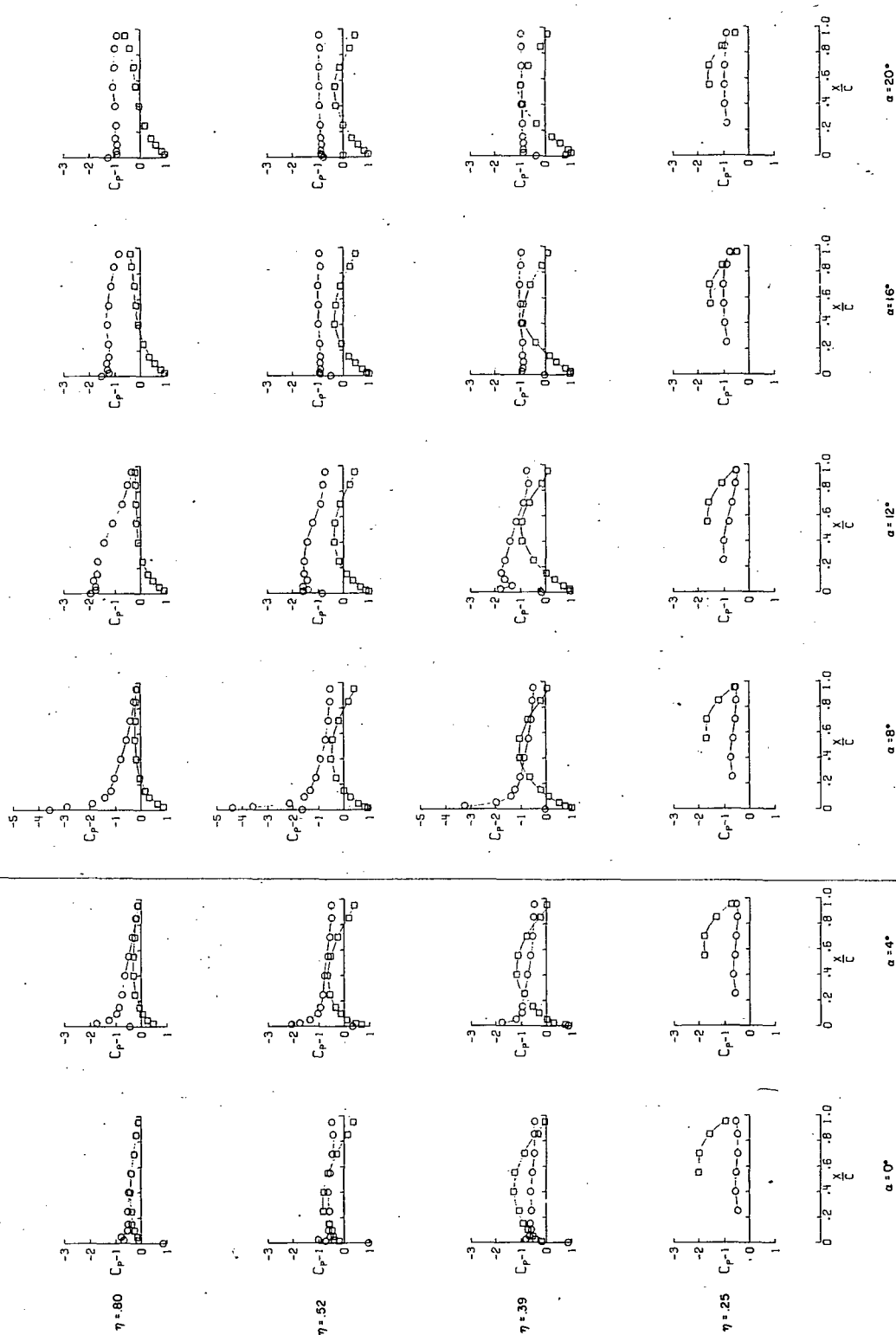


○ Upper surface  
□ Lower surface







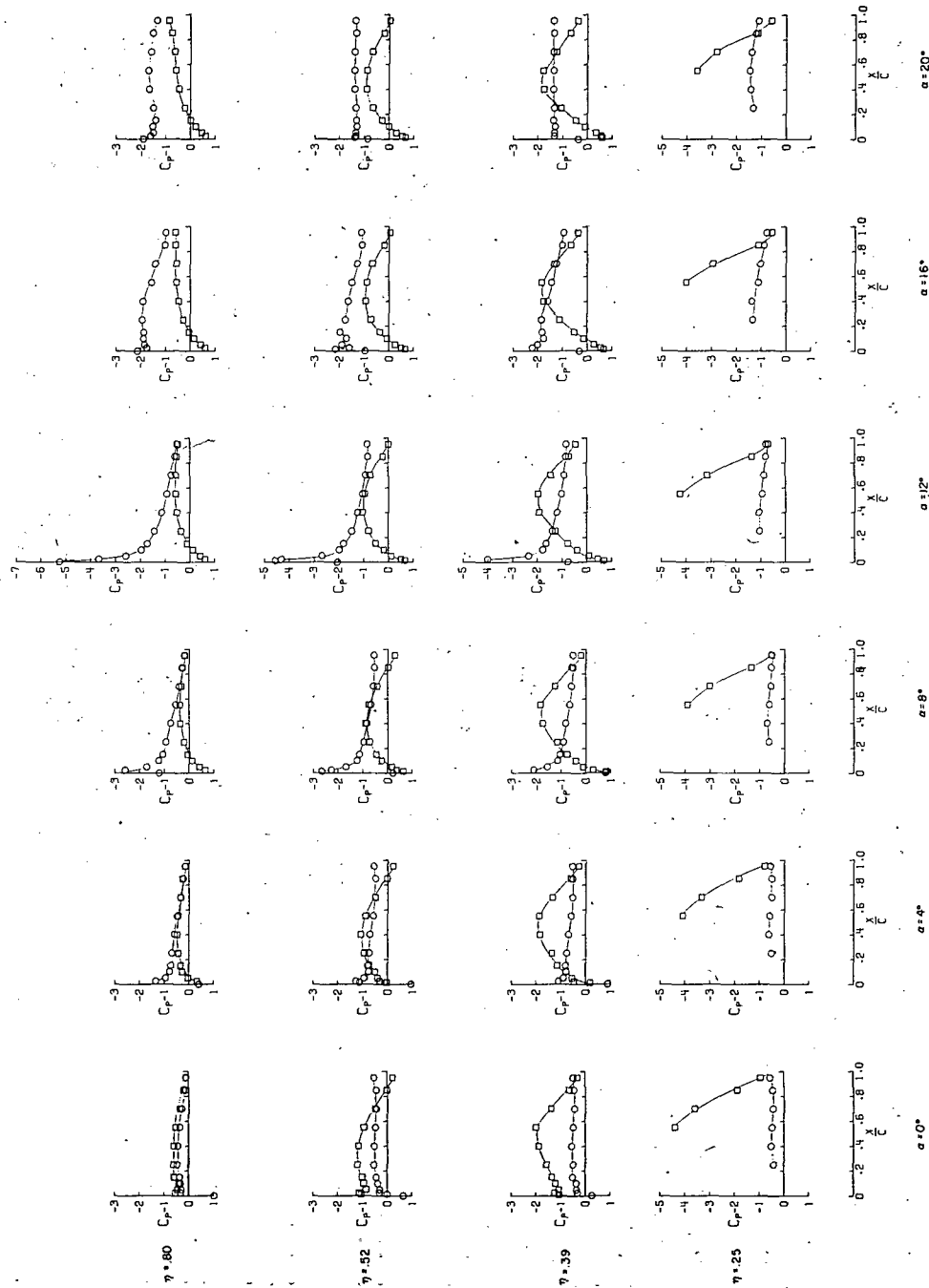


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 11.- Continued.

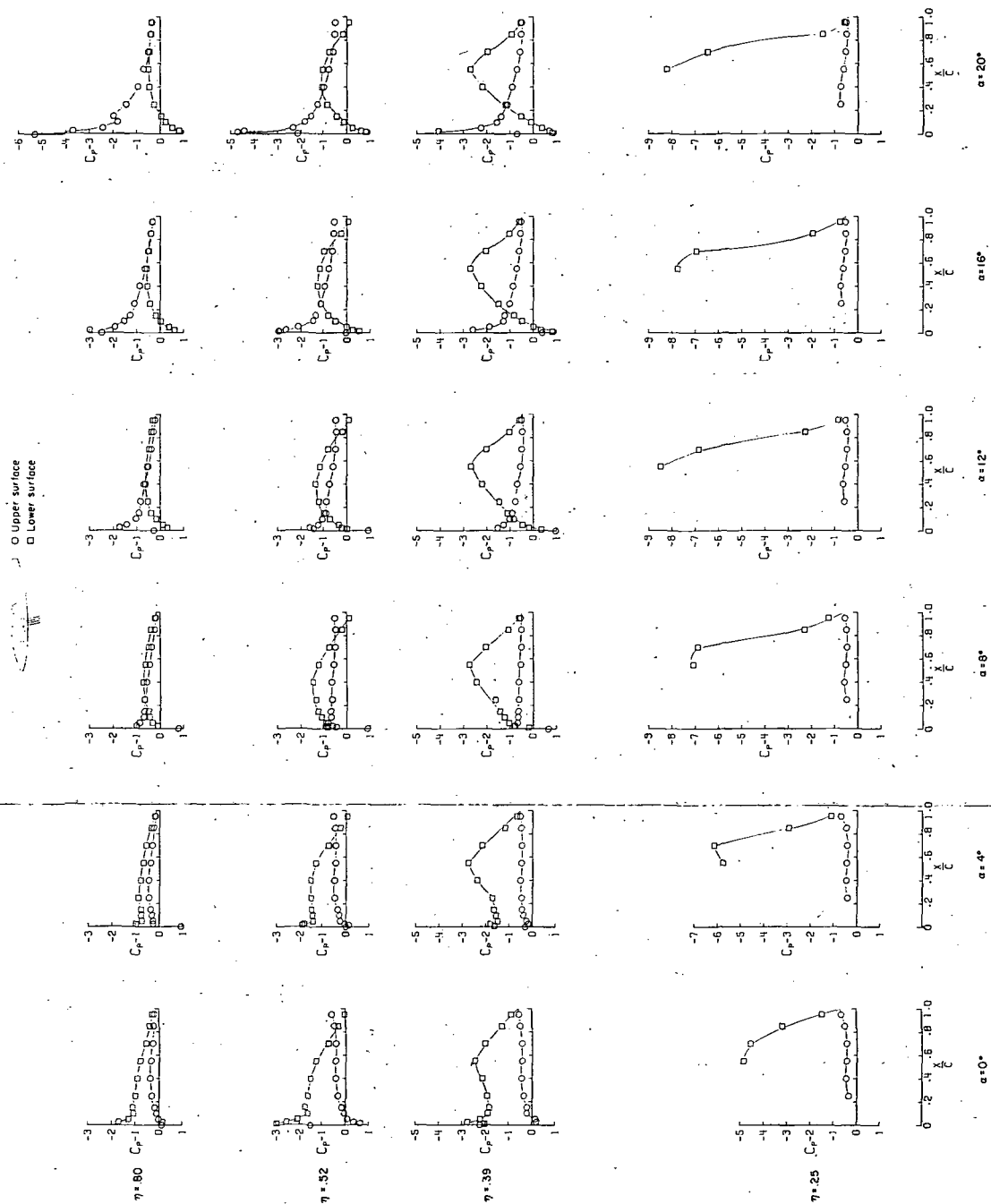


○ Upper surface  
□ Lower surface



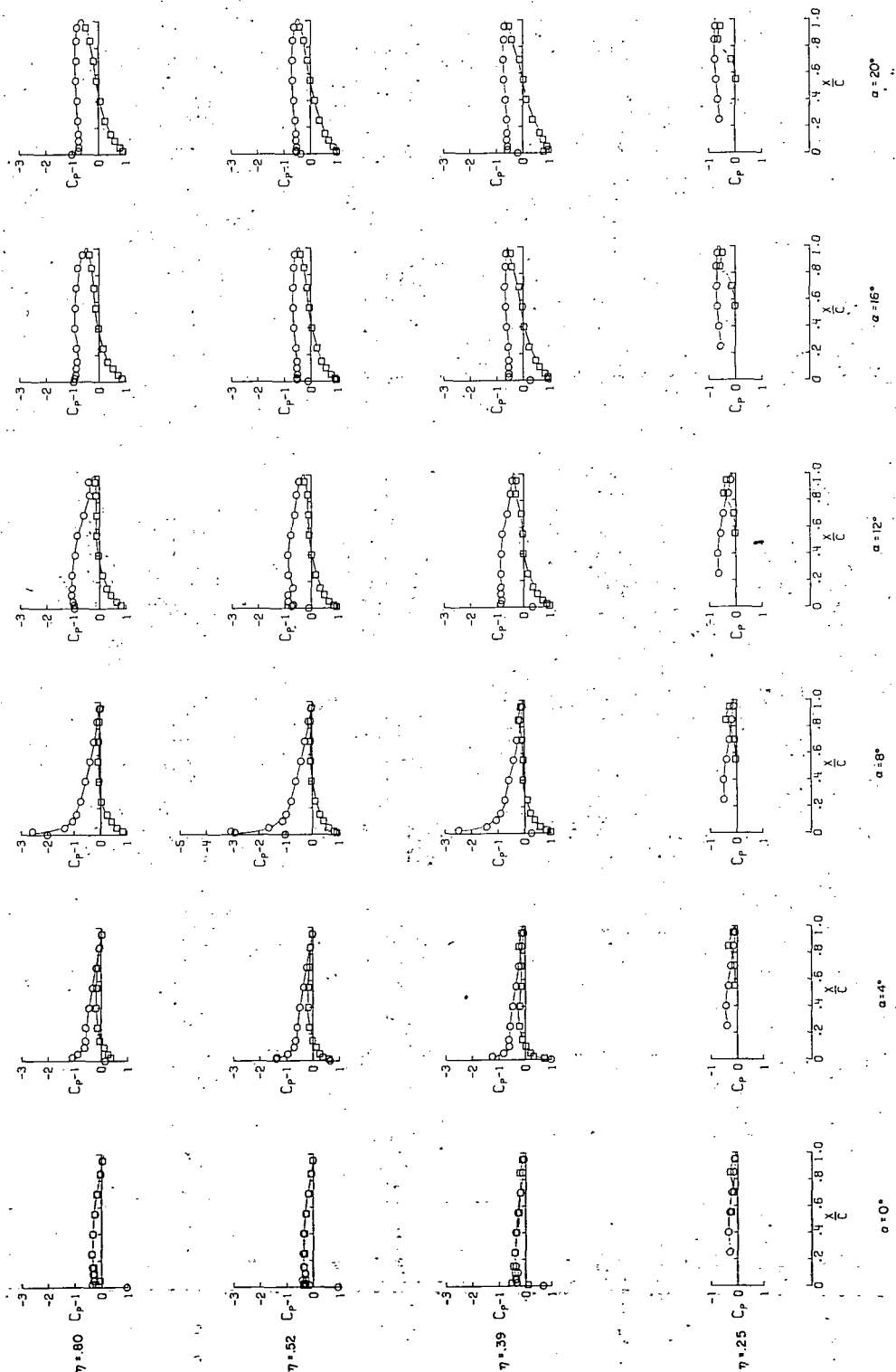
(c)  $(V_{\infty}/V_i)_e \approx 0.2$ .

Figure 11.- Continued.



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

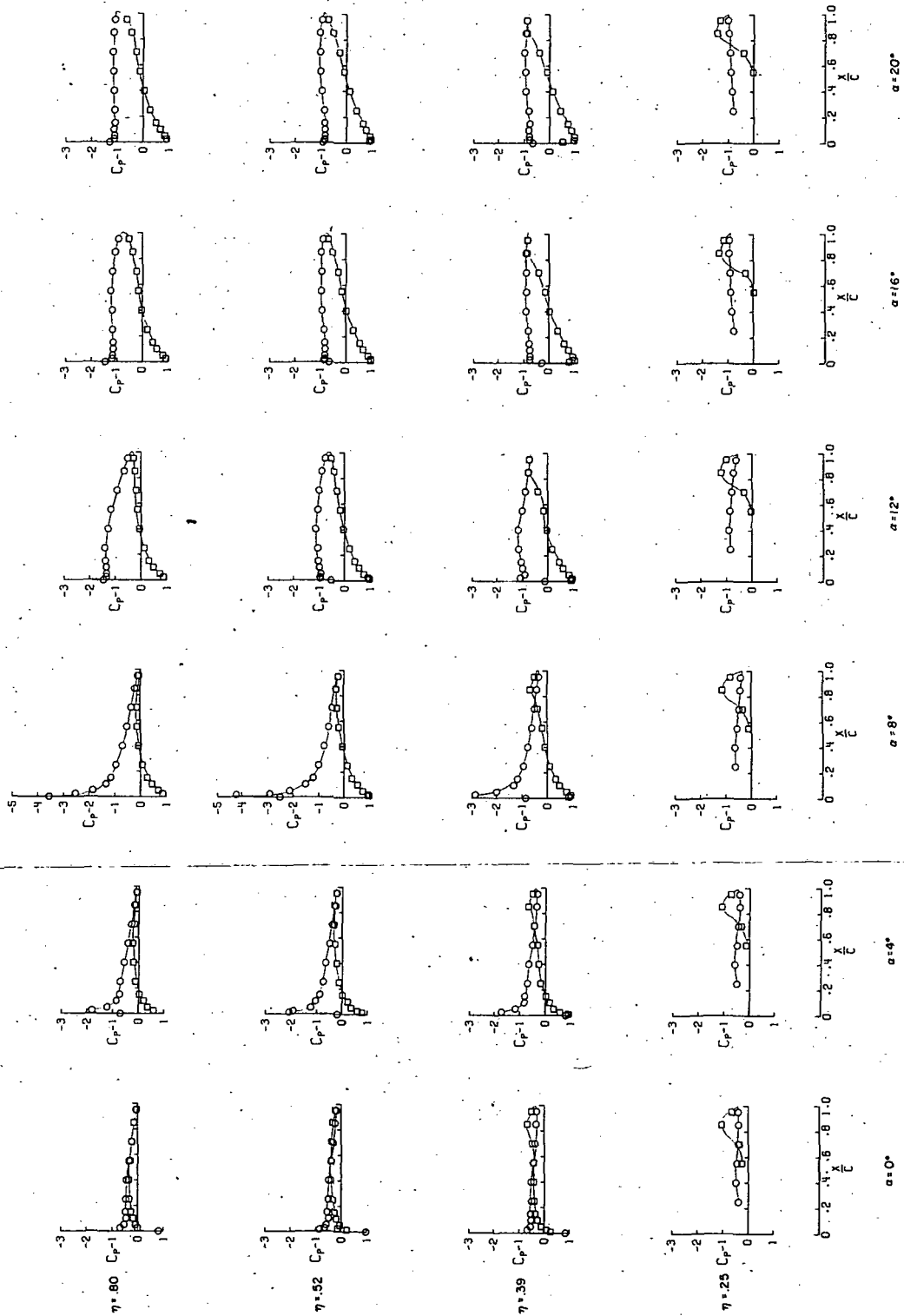
Figure 11.- Concluded.



$$(a) \left( \frac{V_\infty}{V_j} \right)_e \approx \infty.$$

Figure 12.- Pressure distributions on the wing for the rear 90° nozzle configuration.

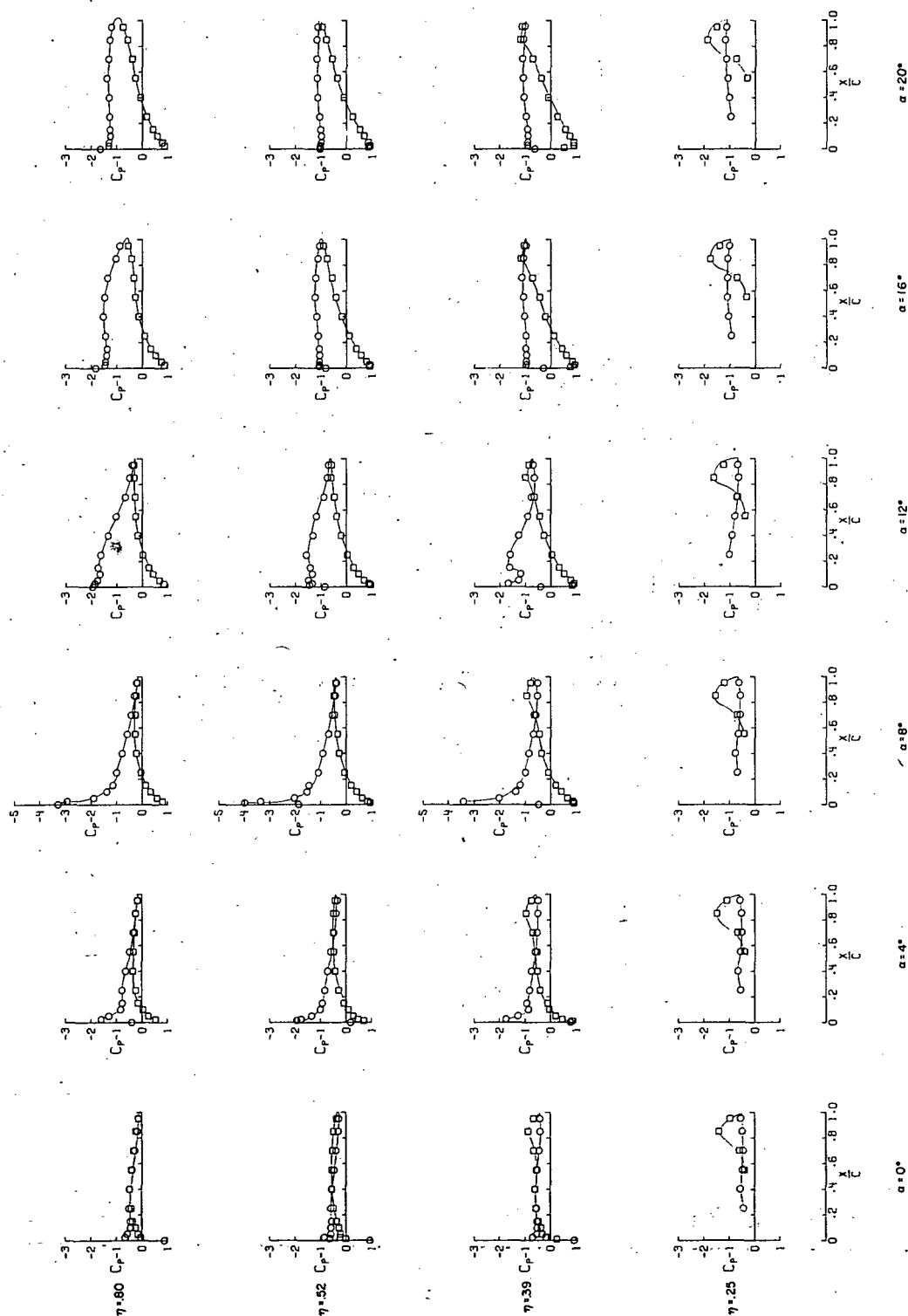
○ Upper surface  
□ Lower surface



(b)  $(V_\infty/V_{j_e}) \approx 0.3$ .

Figure 12.- Continued.

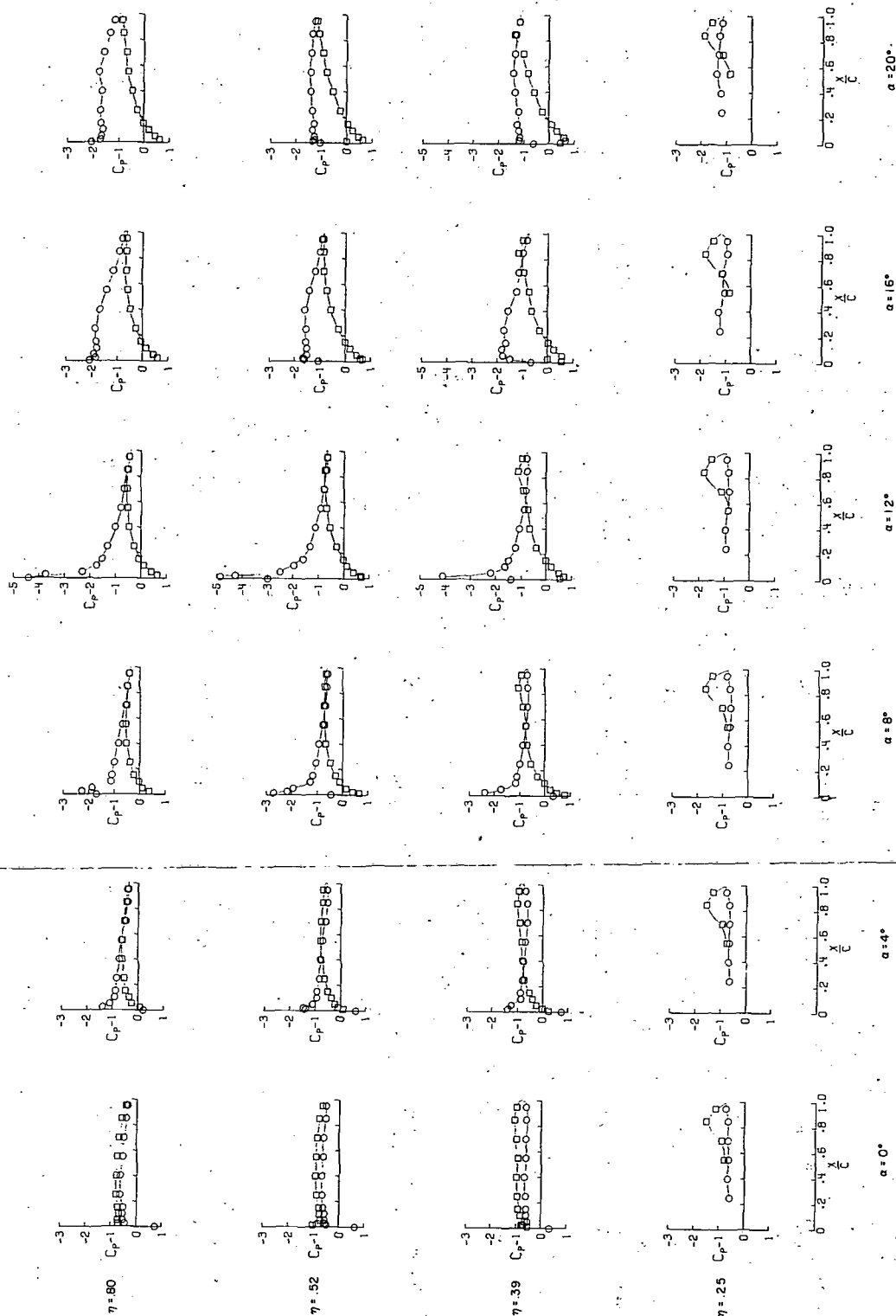
○ Upper surface  
□ Lower surface



(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 12.- Continued.

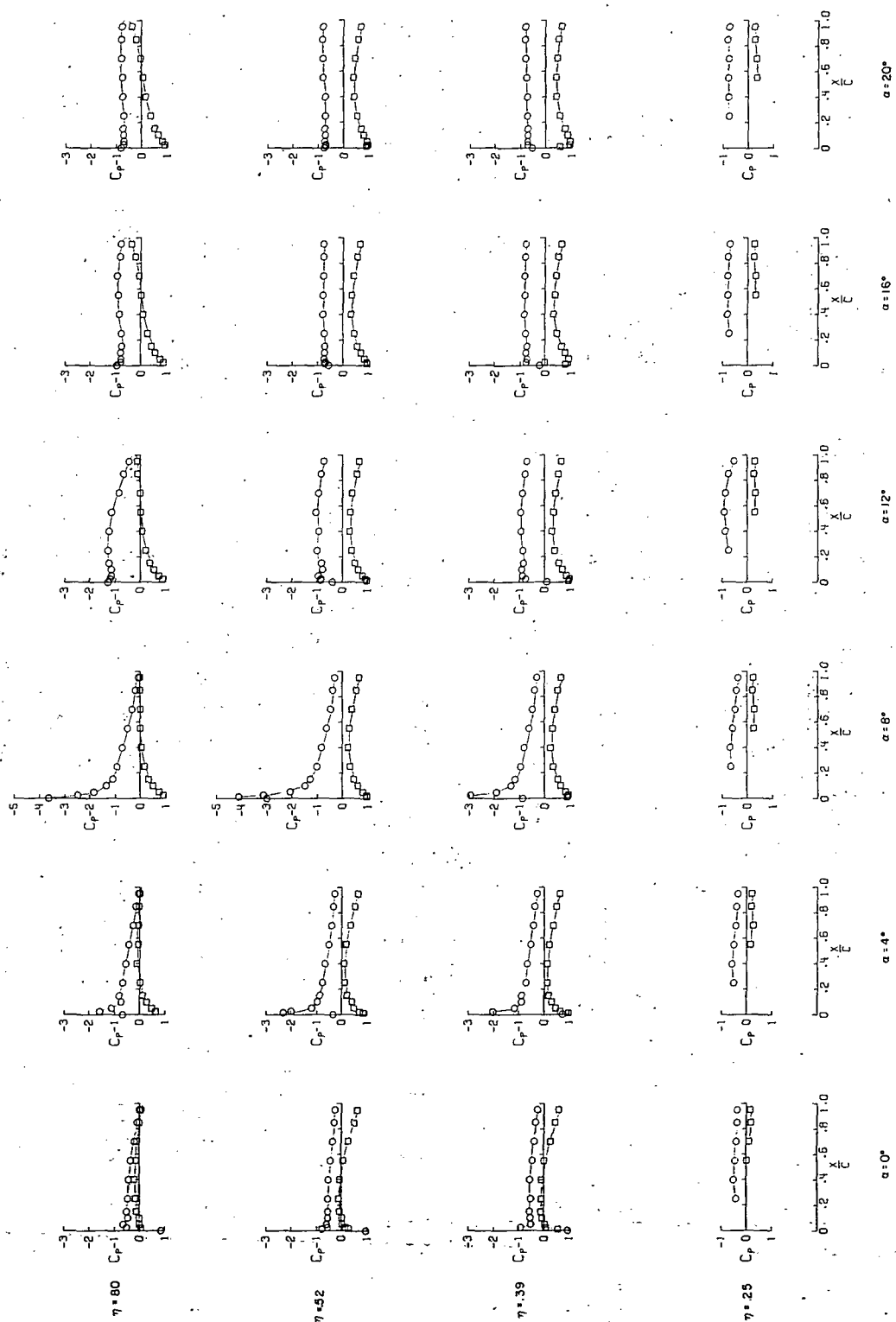
○ Upper surface  
□ Lower surface



(d)  $(V_\infty/V_i)_e \approx 0.1$ .

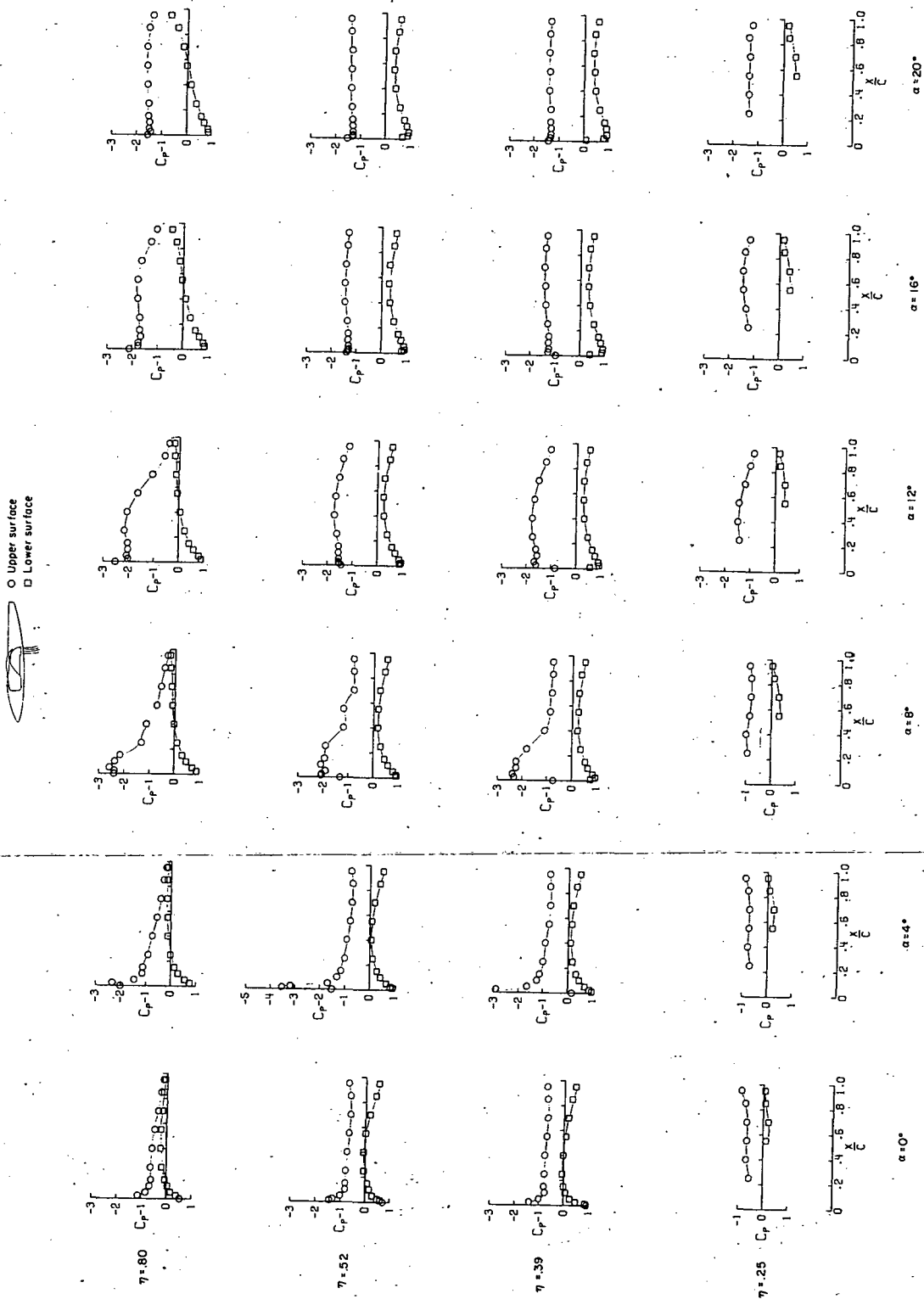
Figure 12.- Concluded.





(a)  $(V_\infty/V_j)e \approx \infty$ .

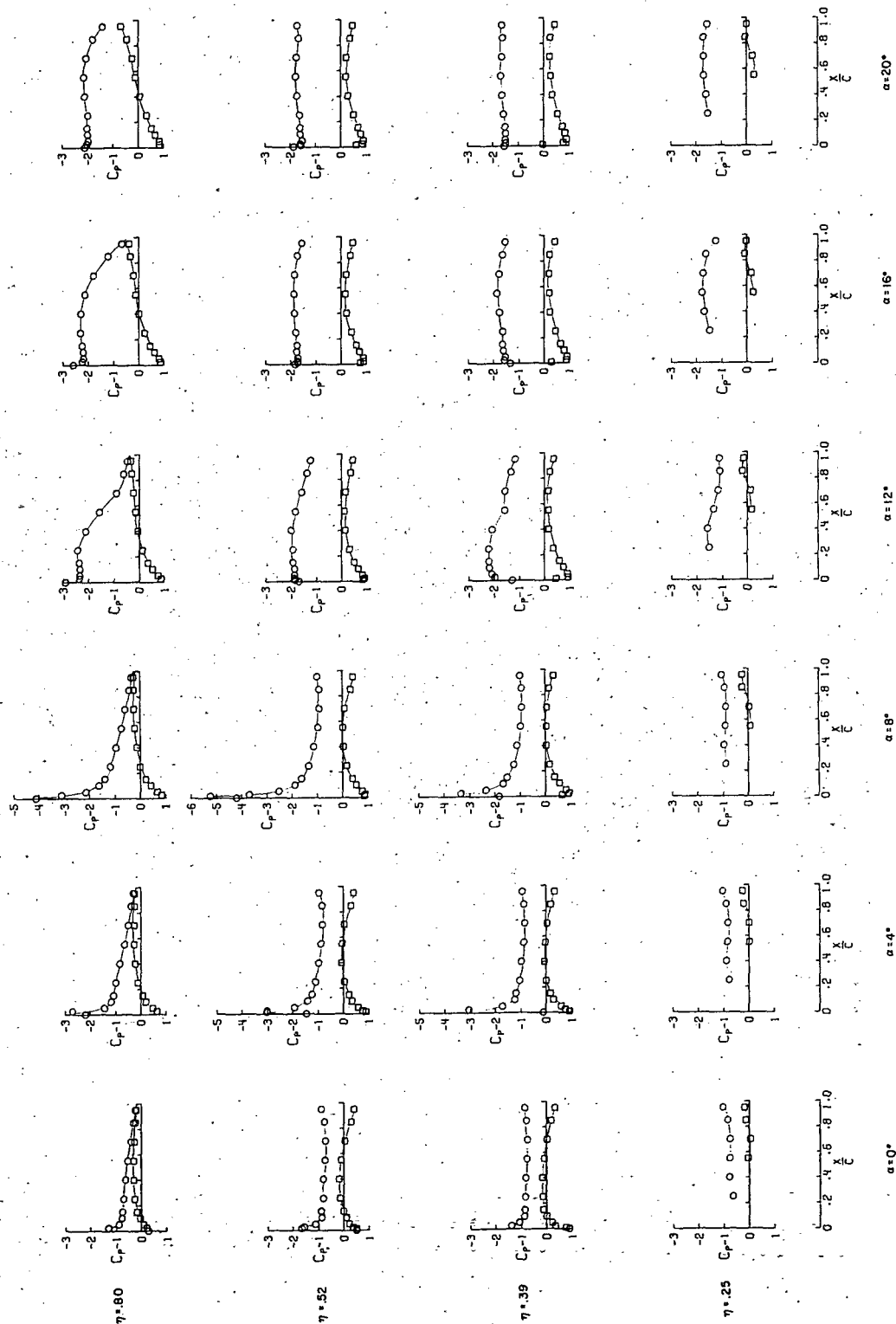
Figure 13. - Pressure distributions on the wing with flaps for the rear 90° nozzle configuration.



(b)  $(V_\infty/V_i)_e \approx 0.3$ .

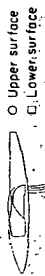
Figure 13.- Continued.

○ Upper surface  
□ Lower surface

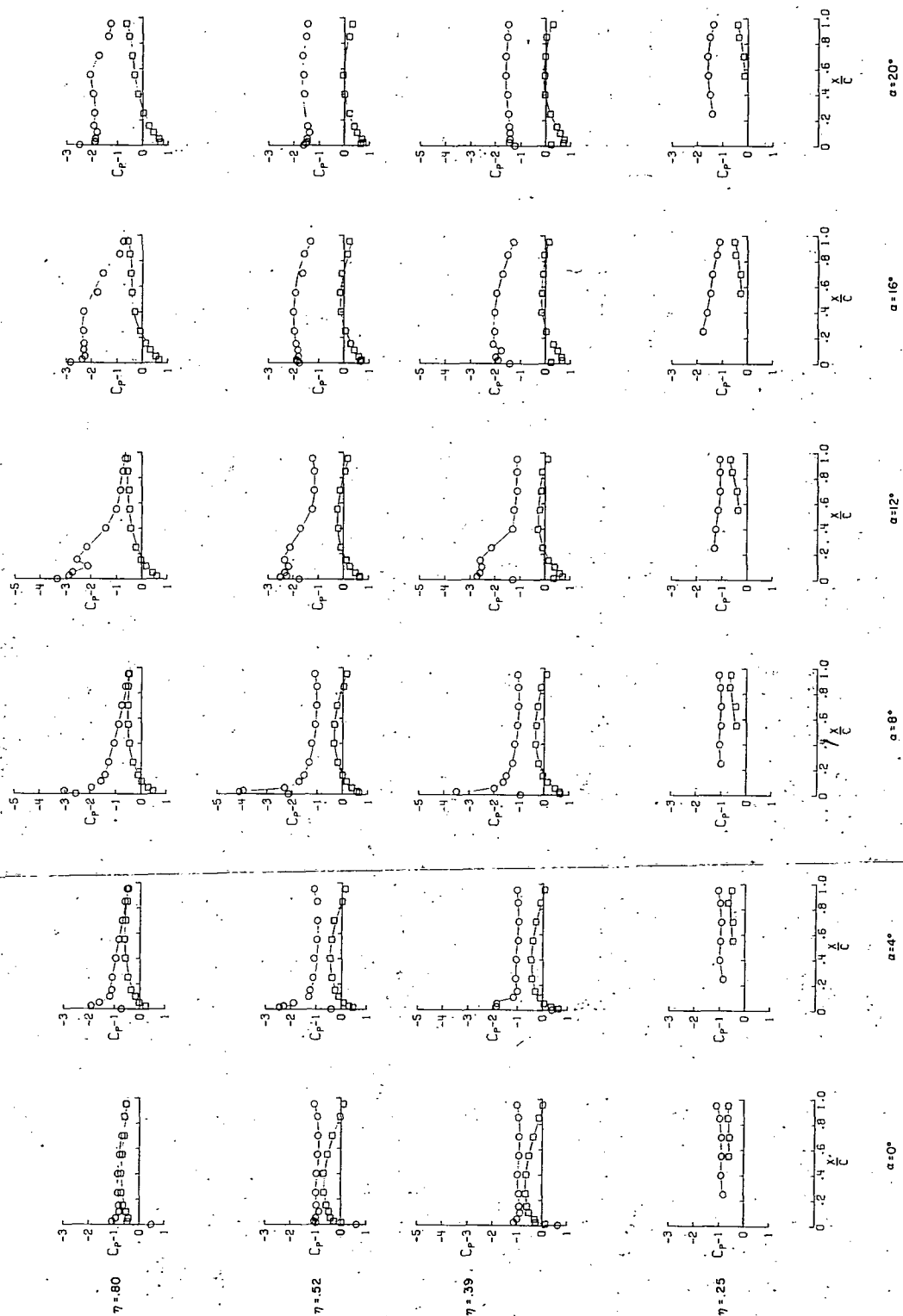


(c)  $(V_\infty/V_i)_e \approx 0.2$ .

Figure 13.- Continued.

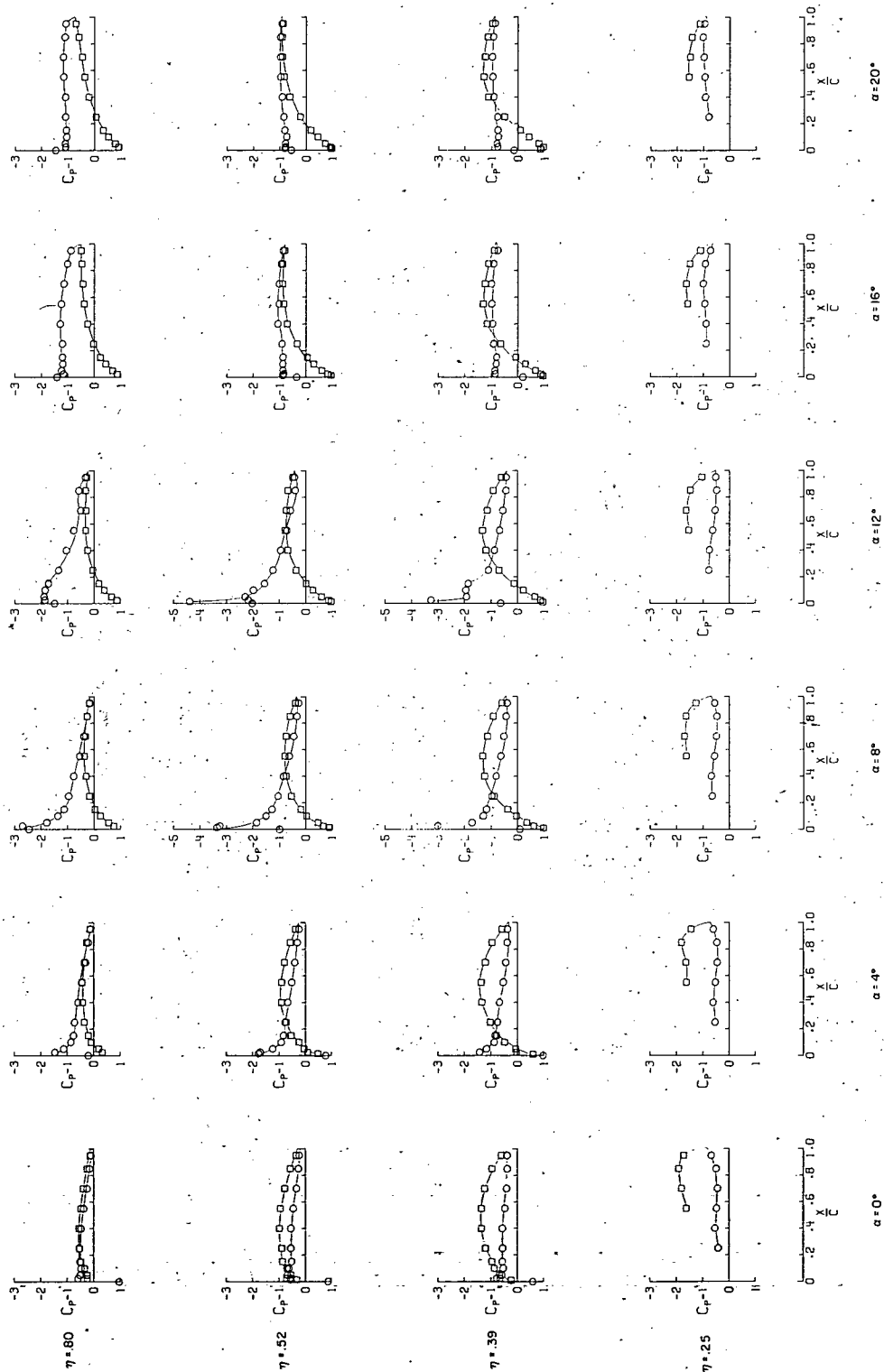


O Upper surface  
□ Lower surface



(d)  $(V_\infty/V_i)_e \approx 0.1$

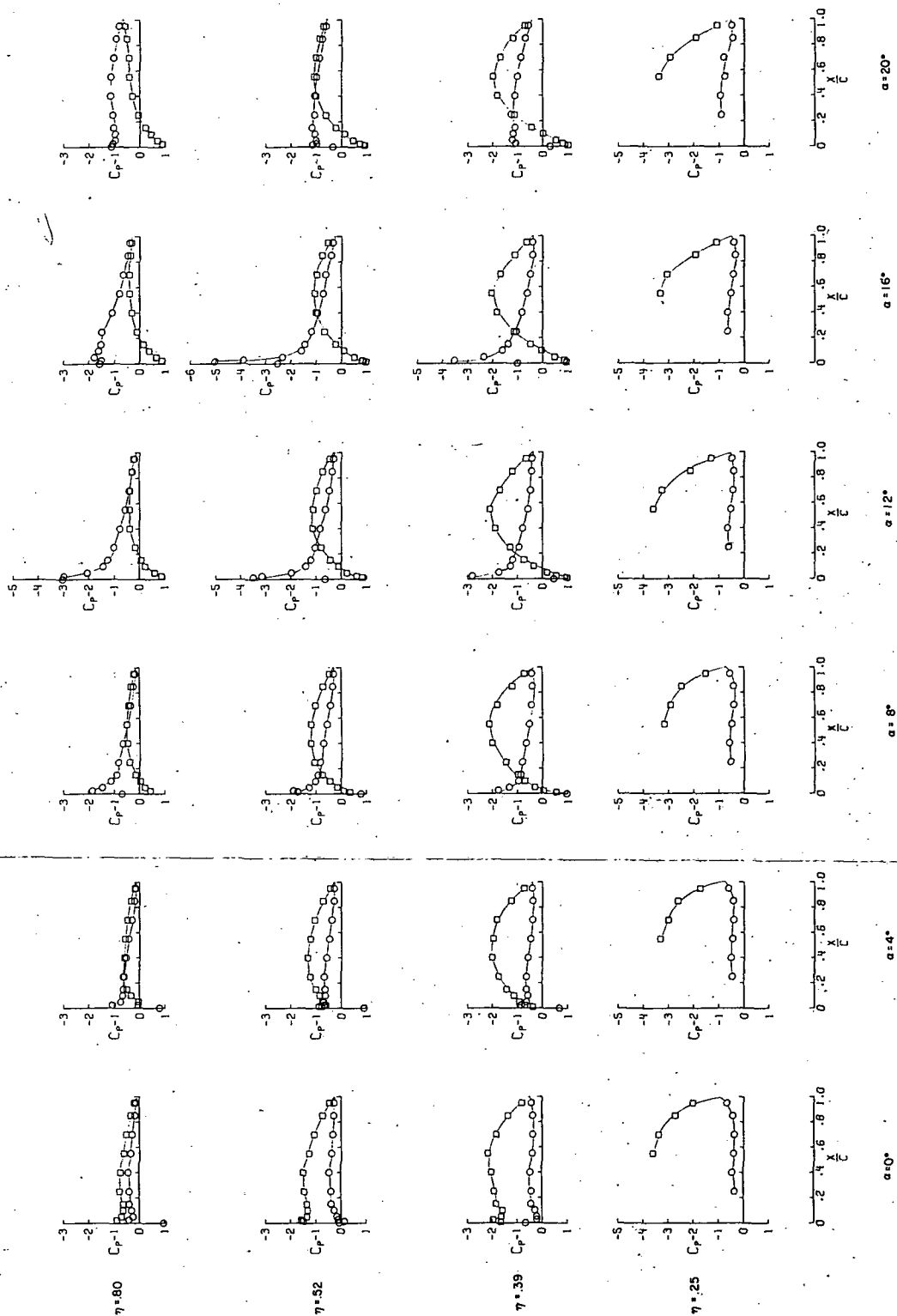
Figure 13.- Concluded.



(a)  $(V_\infty/V_{j_e}) \approx 0.3$ .

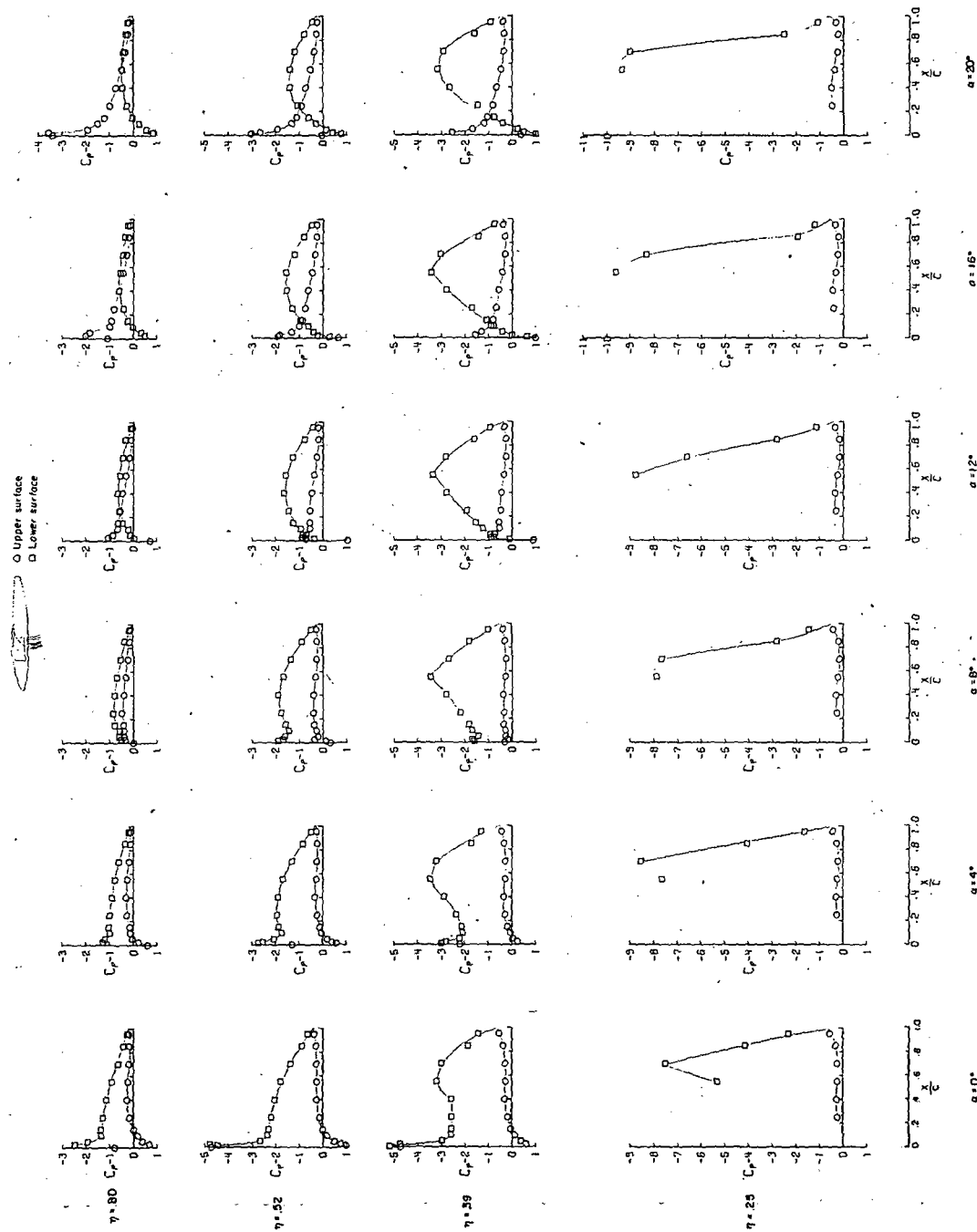
Figure 14. - Pressure distributions on the wing for the lift-jet and forward 90° nozzle configuration.

○ Upper surface  
□ Lower surface



(b)  $(V_\infty/V_i)_e \approx 0.2$ .

Figure 14.- Continued.



(c)  $(V_\infty/V_i)_e \approx 0.1$ .

Figure 14.- Concluded.

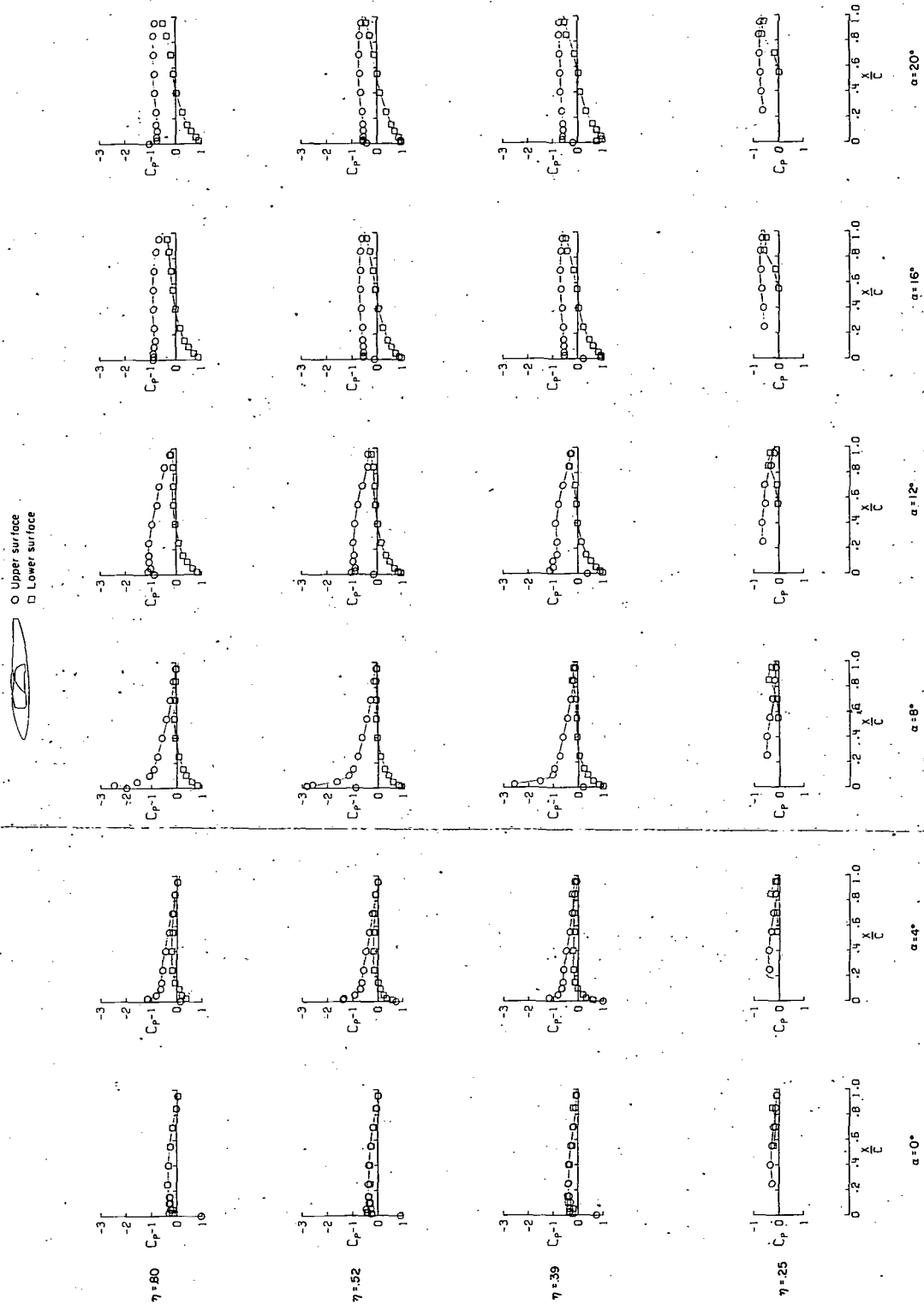
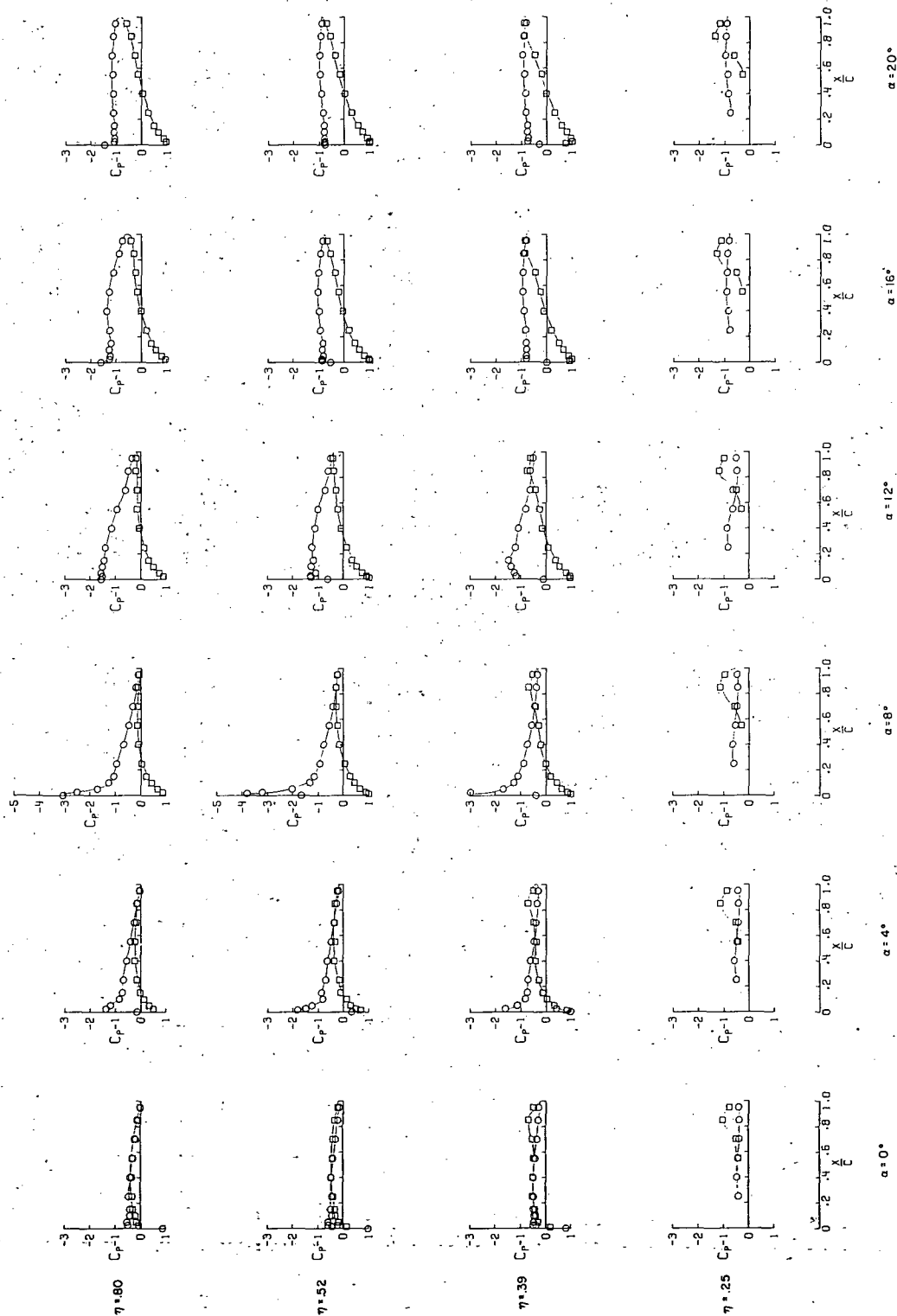


Figure 15. - Pressure distributions on the wing for the lift-jet and rear 90° nozzle configuration.

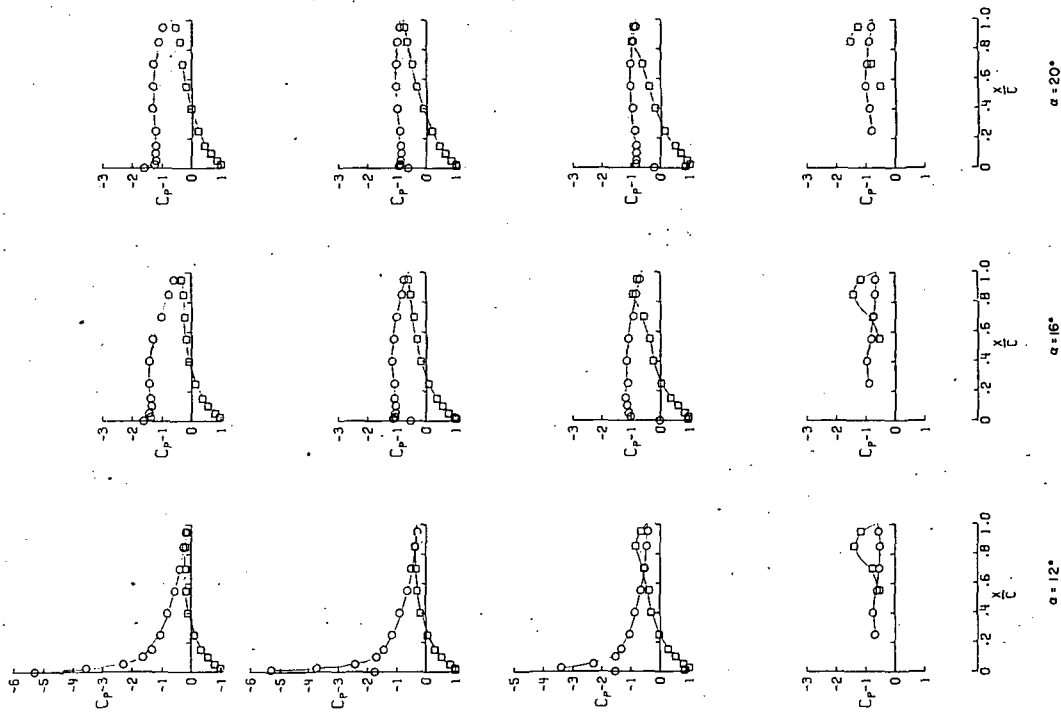
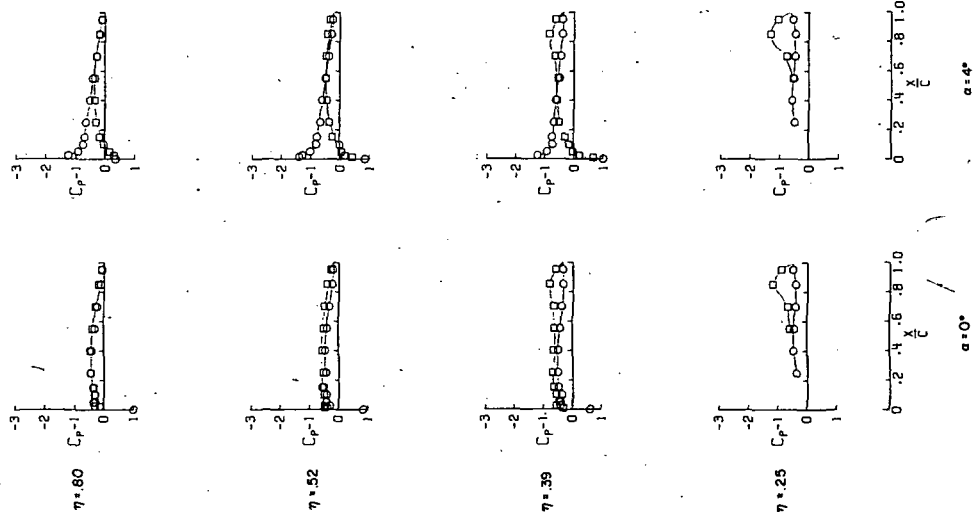




(b)  $(V_\infty/V_i)_e \approx 0.3$ .

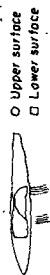
Figure 15.- Continued.

○ Upper surface  
□ Lower surface

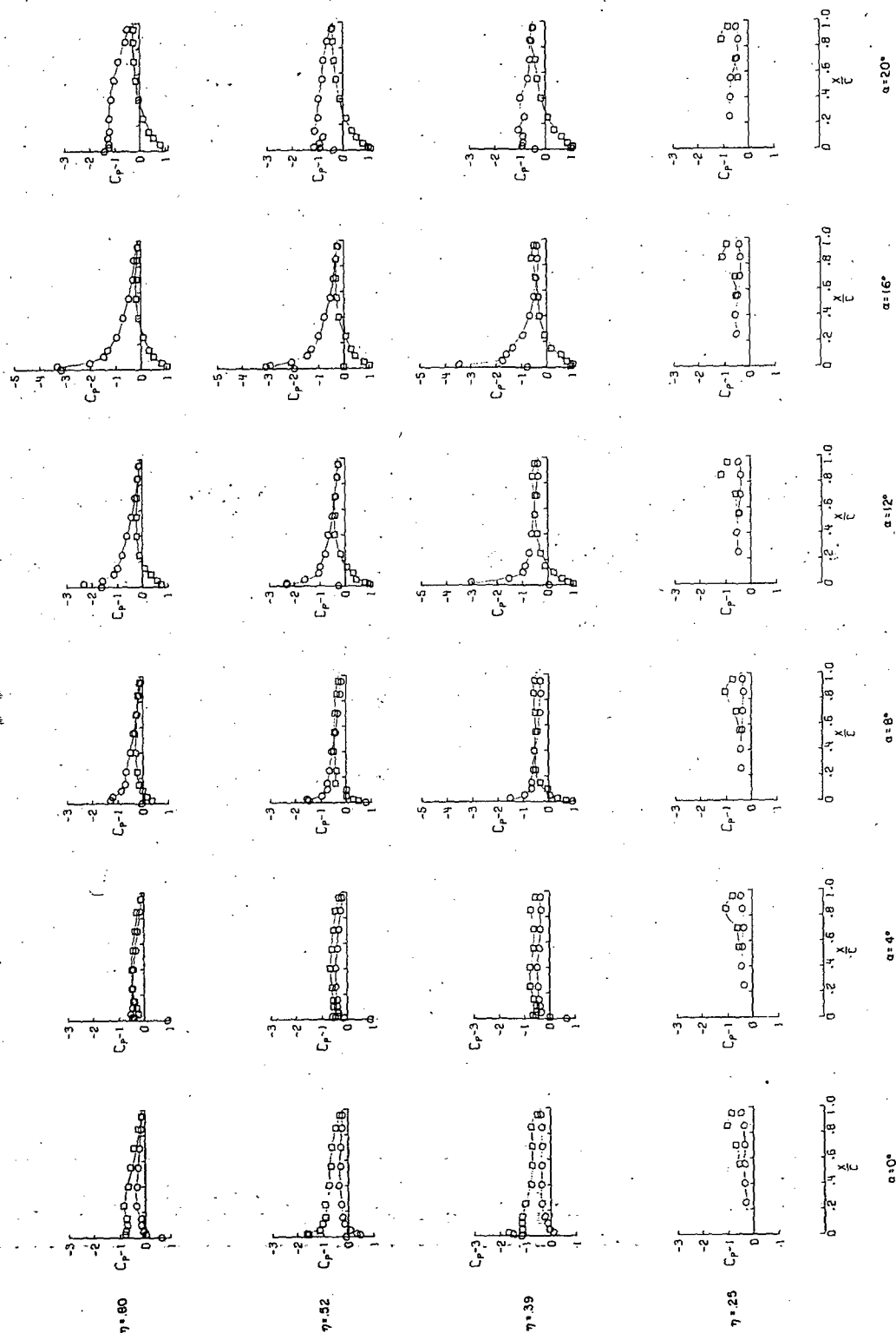


(c)  $(V_\infty/V_i)_e \approx 0.2$ .

Figure 15.- Continued.



O Upper surface  
□ Lower surface



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 15.- Concluded.

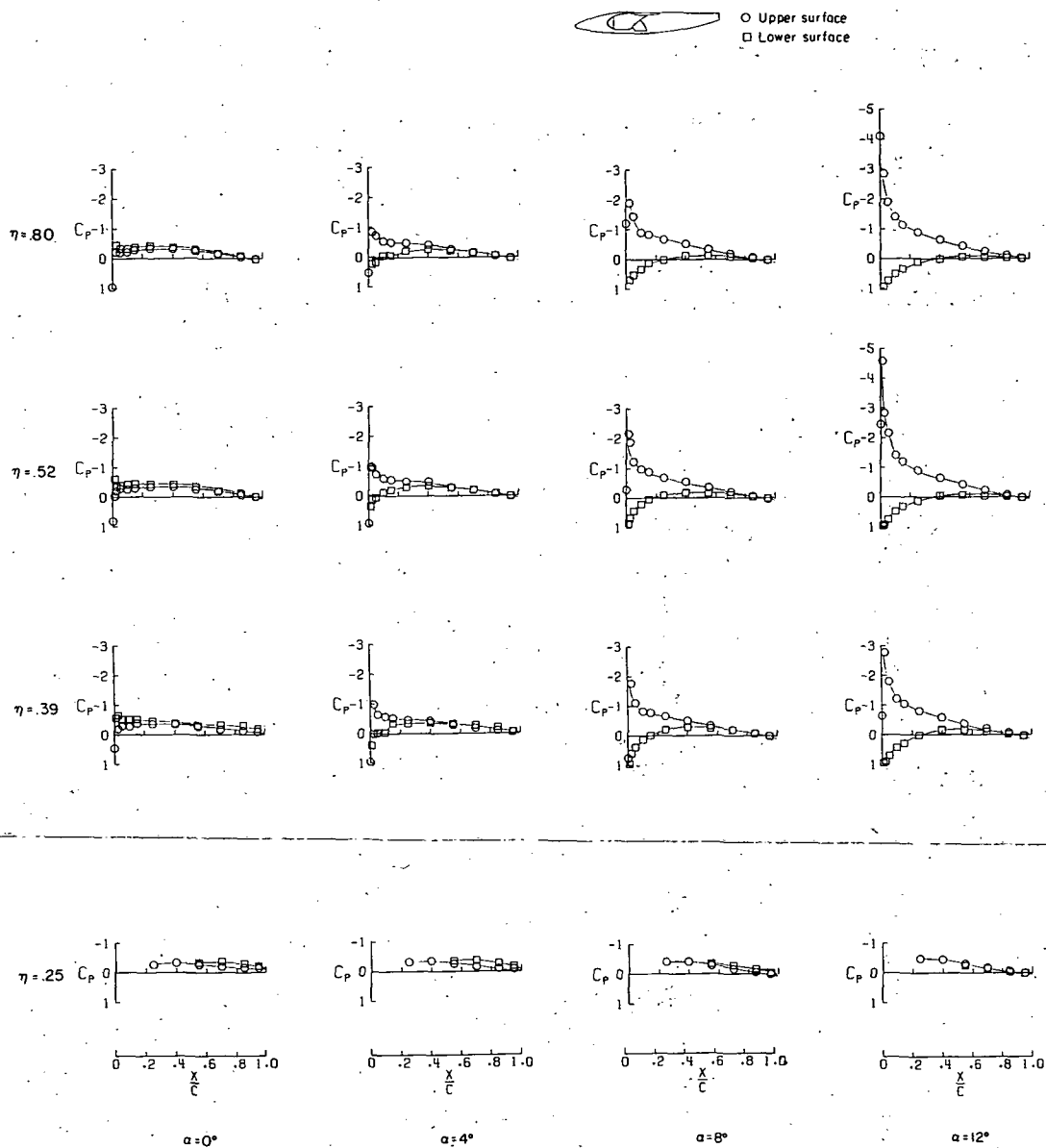
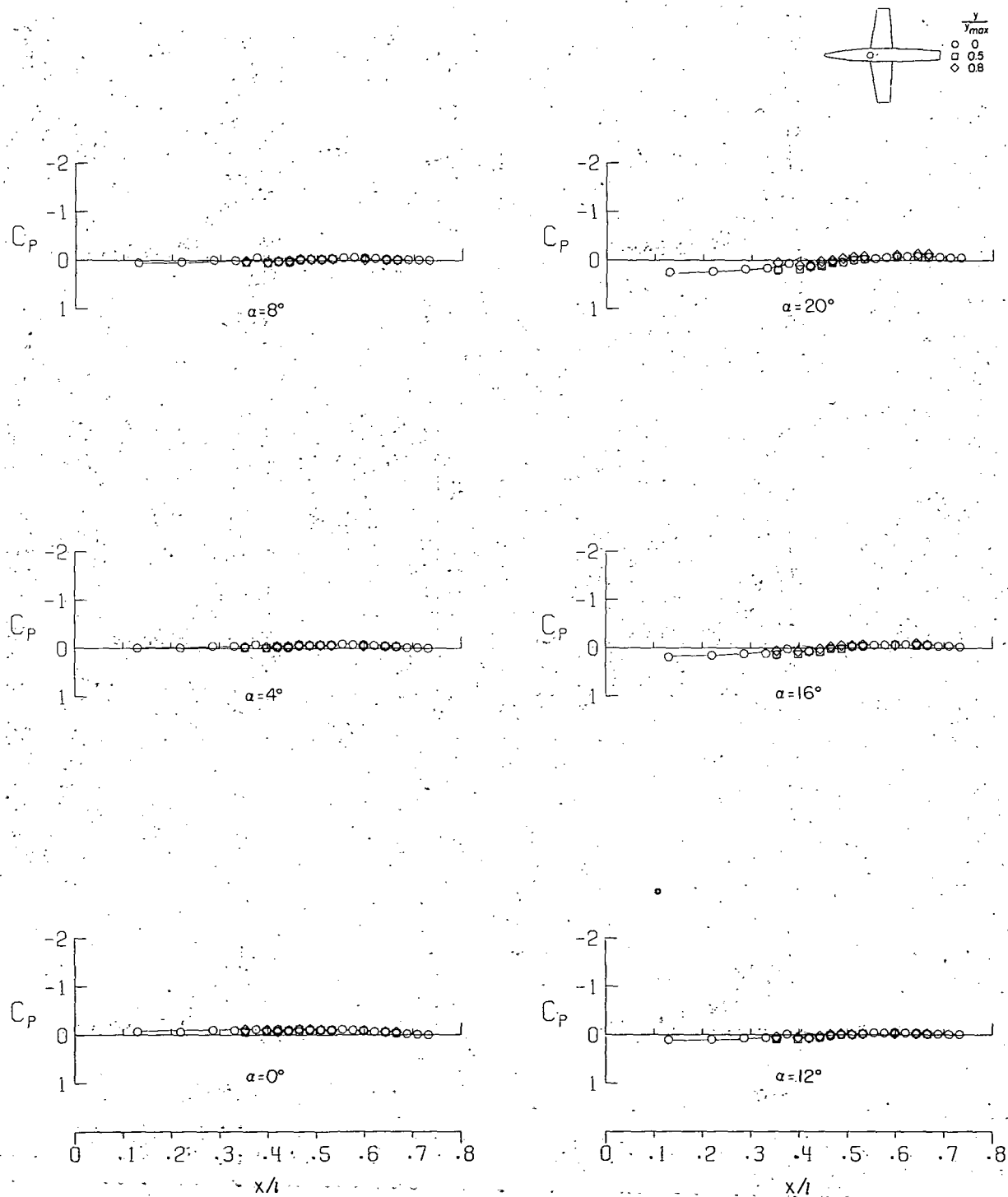
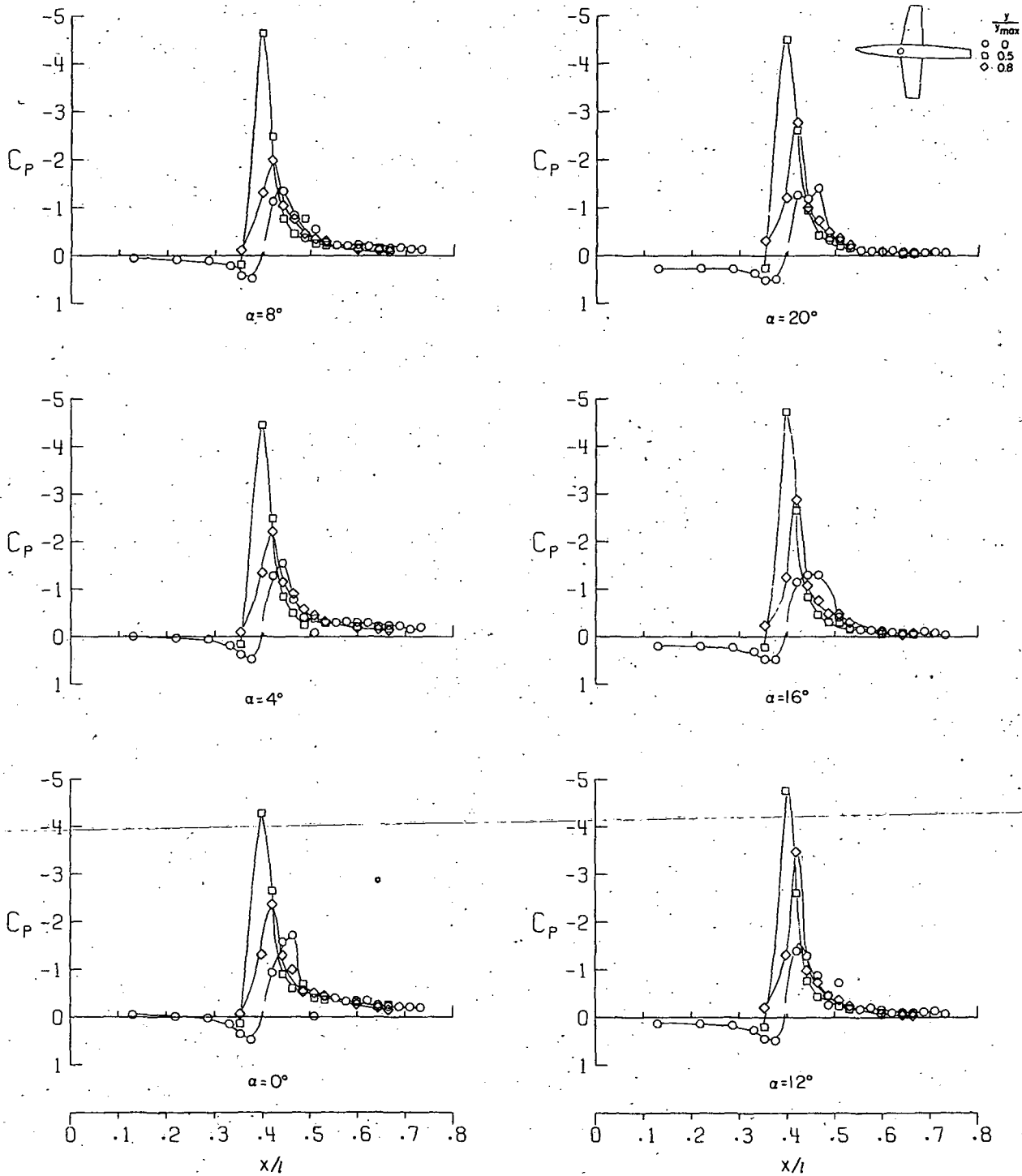


Figure 16.- Pressure distributions on the wing for the forward  $90^\circ$  nozzle configuration with inlets closed.  $(V_\infty/V_j)_e \approx \infty$ .



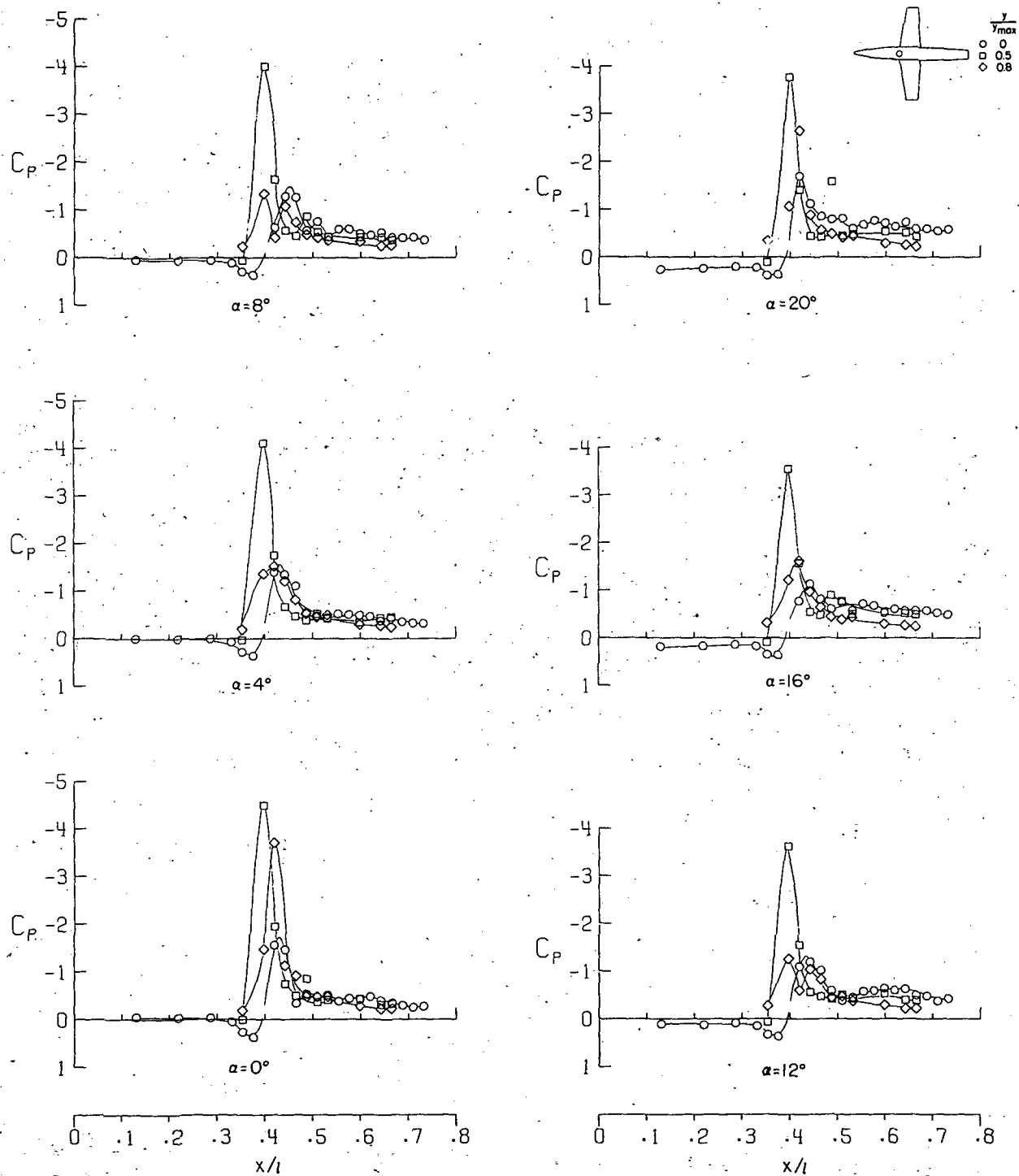
(a)  $(V_\infty/V_j)_e \approx \infty$

Figure 17.- Pressure distributions on the fuselage for the lift-jet configuration.

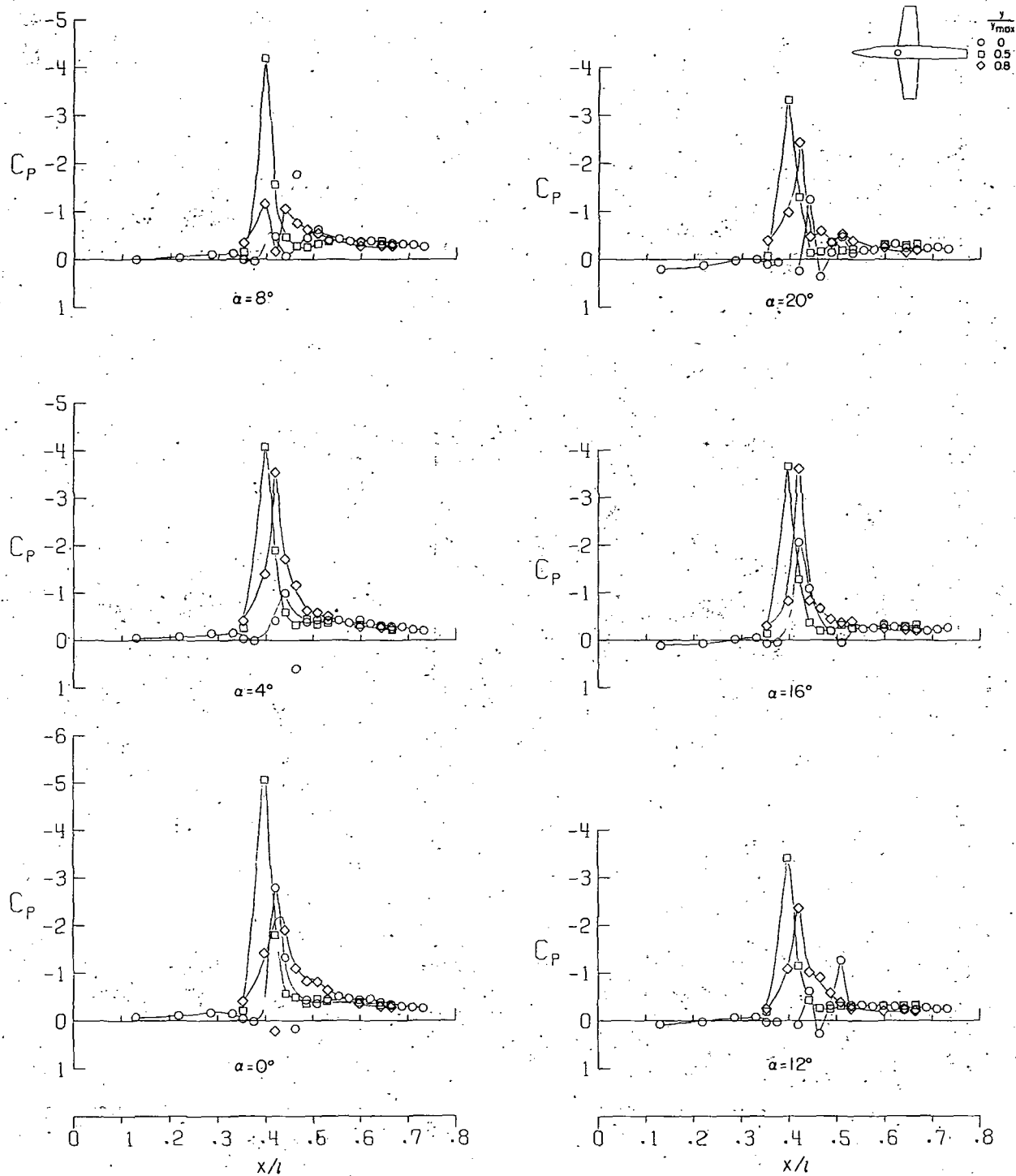


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 17.- Continued.



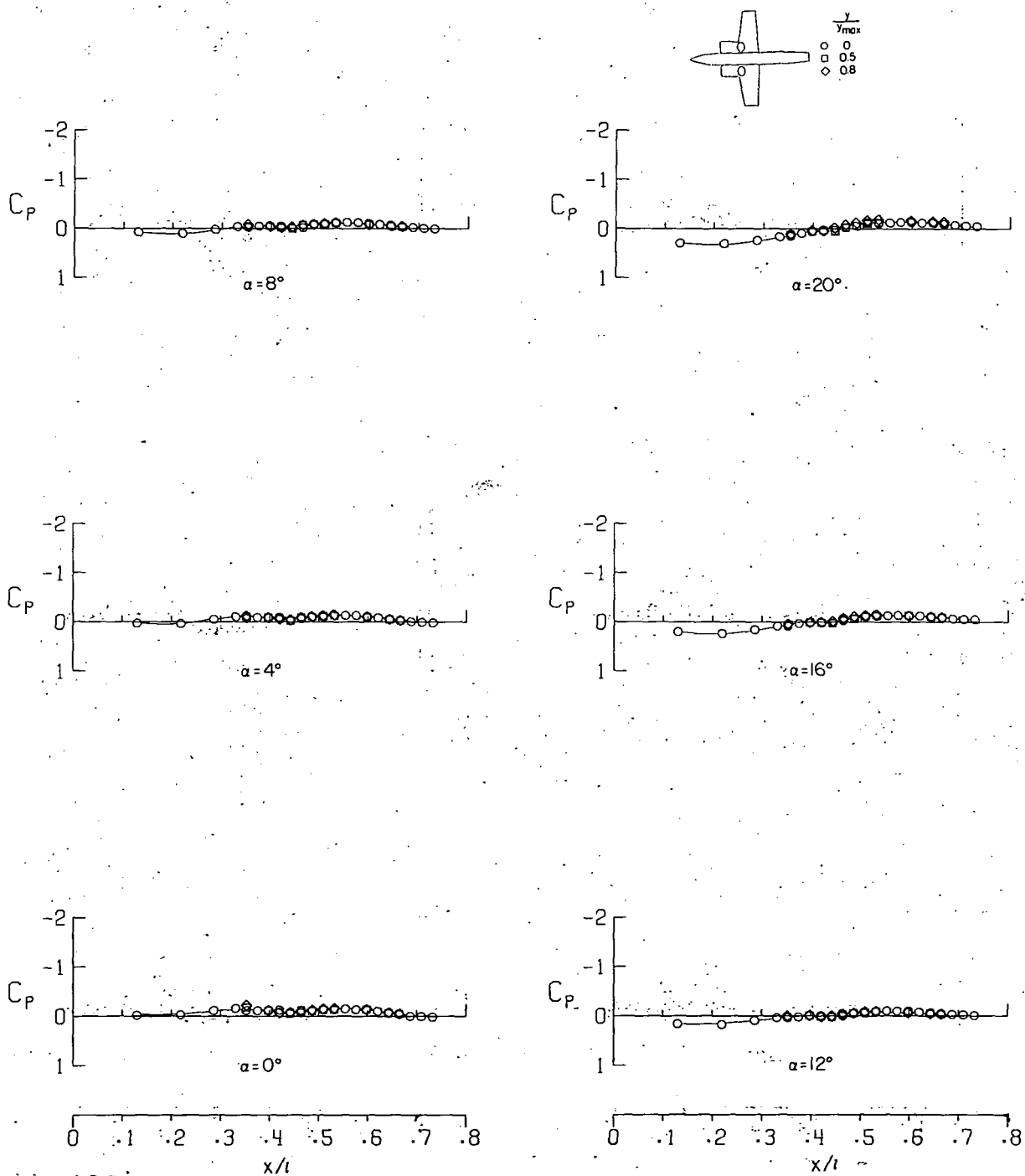
(c)  $(V_\infty/V_j)_e \approx 0.2$ .  
Figure 17.- Continued.



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

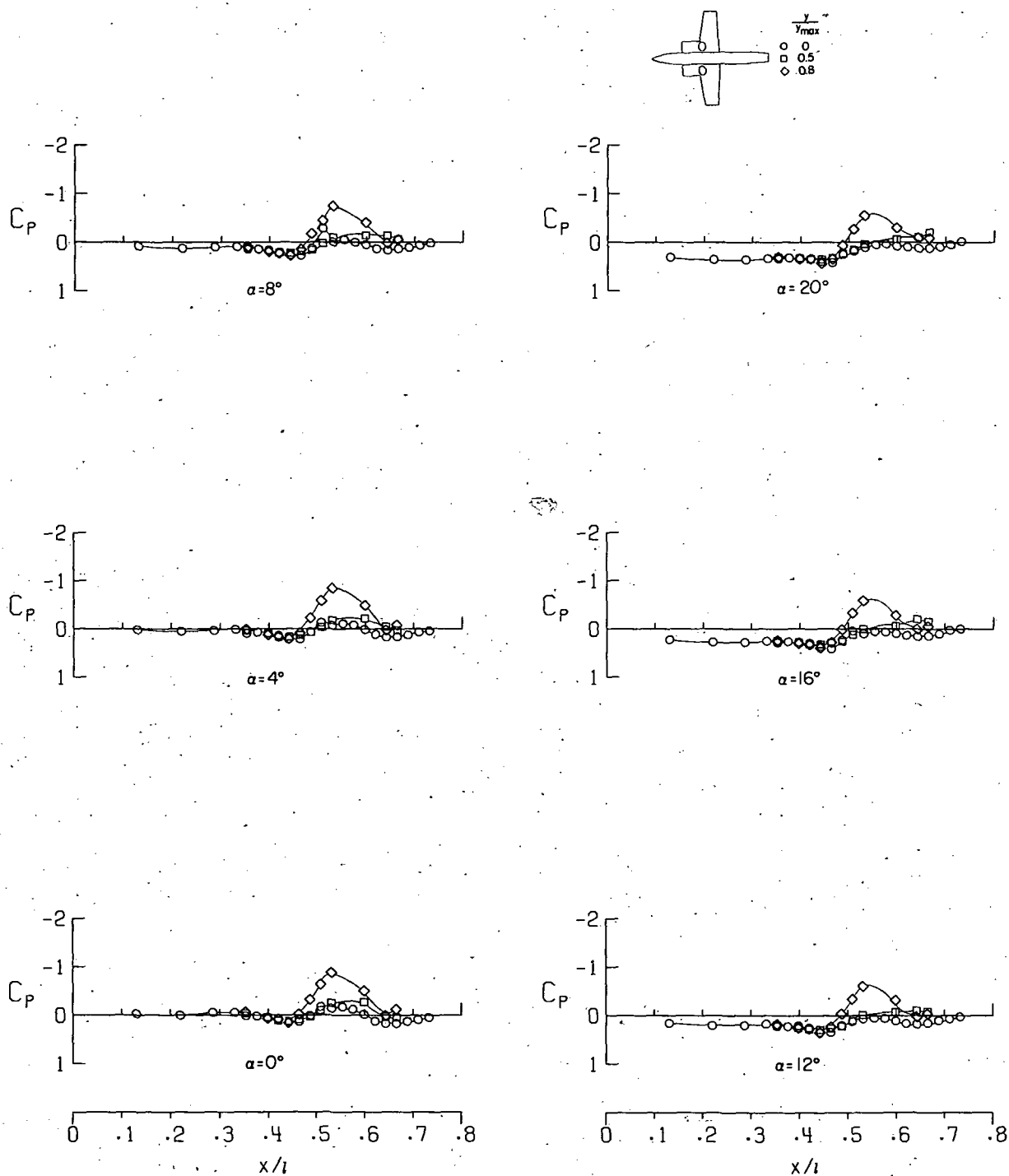
Figure 17.- Concluded.



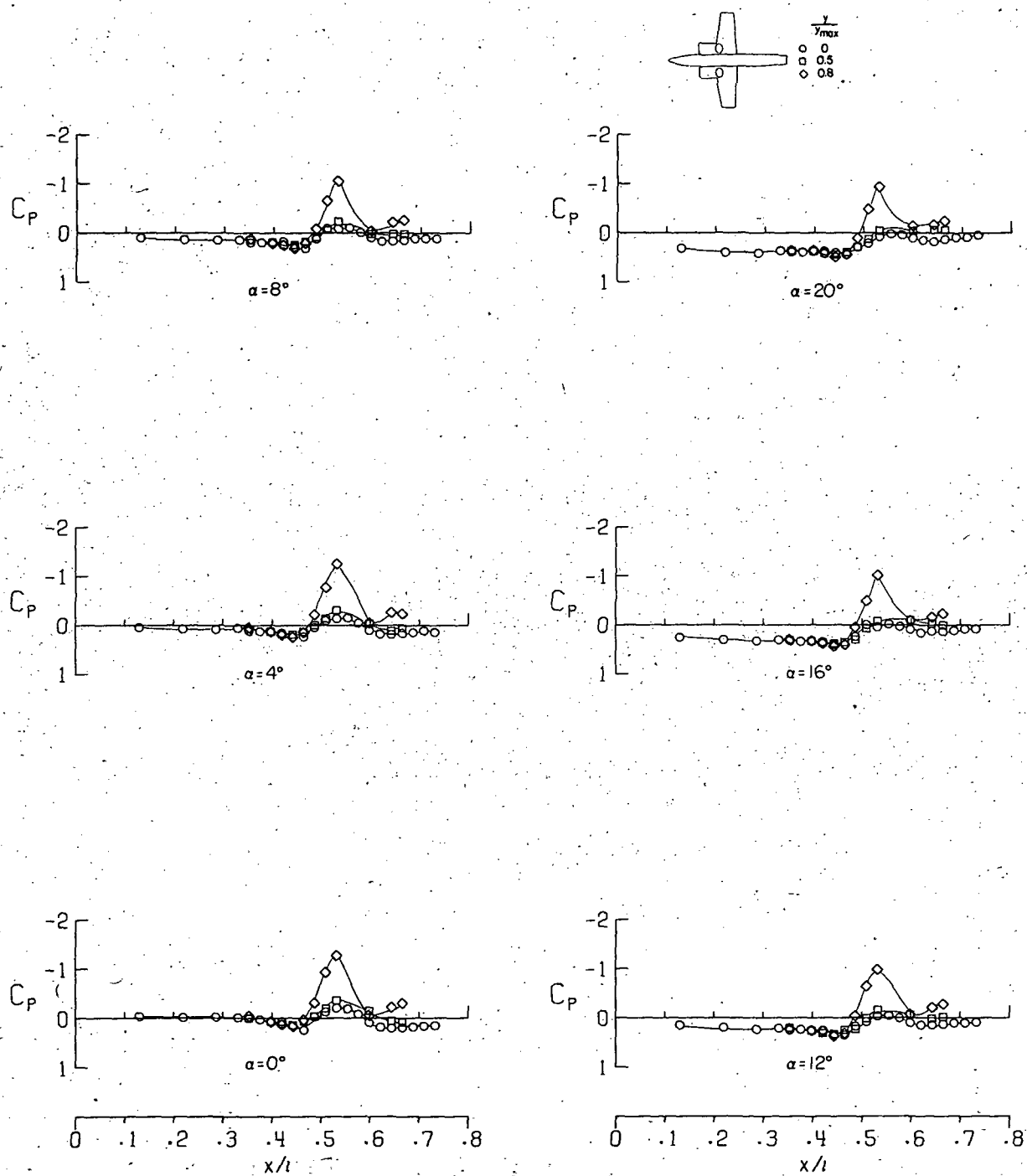


(a)  $(V_\infty/V_j)_e \approx \infty$

Figure 18.- Pressure distributions on the fuselage for the forward 45° nozzle configuration.

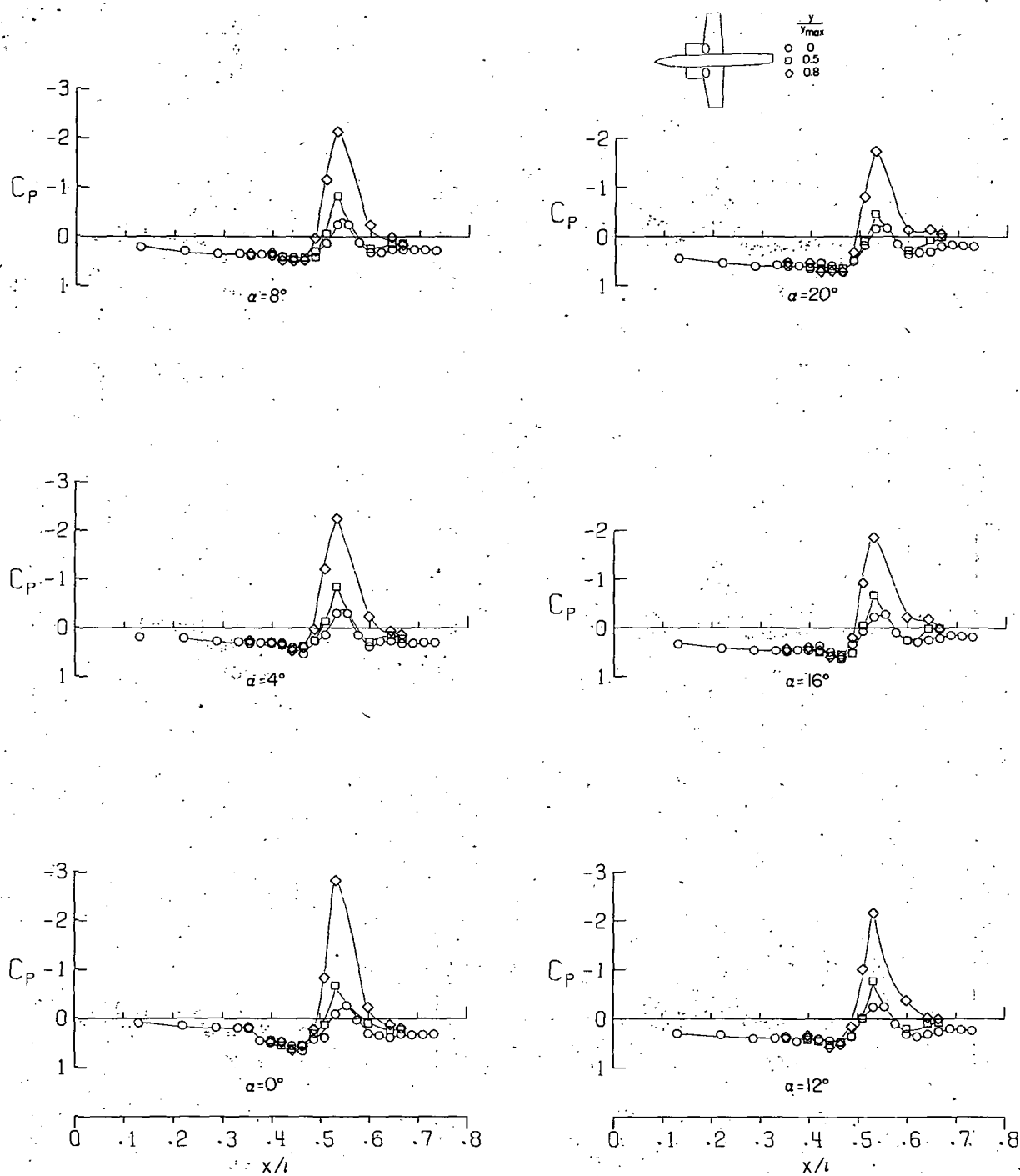


(b)  $(V_\infty/V_{j_e}) \approx 0.3$ .  
Figure 18.- Continued.



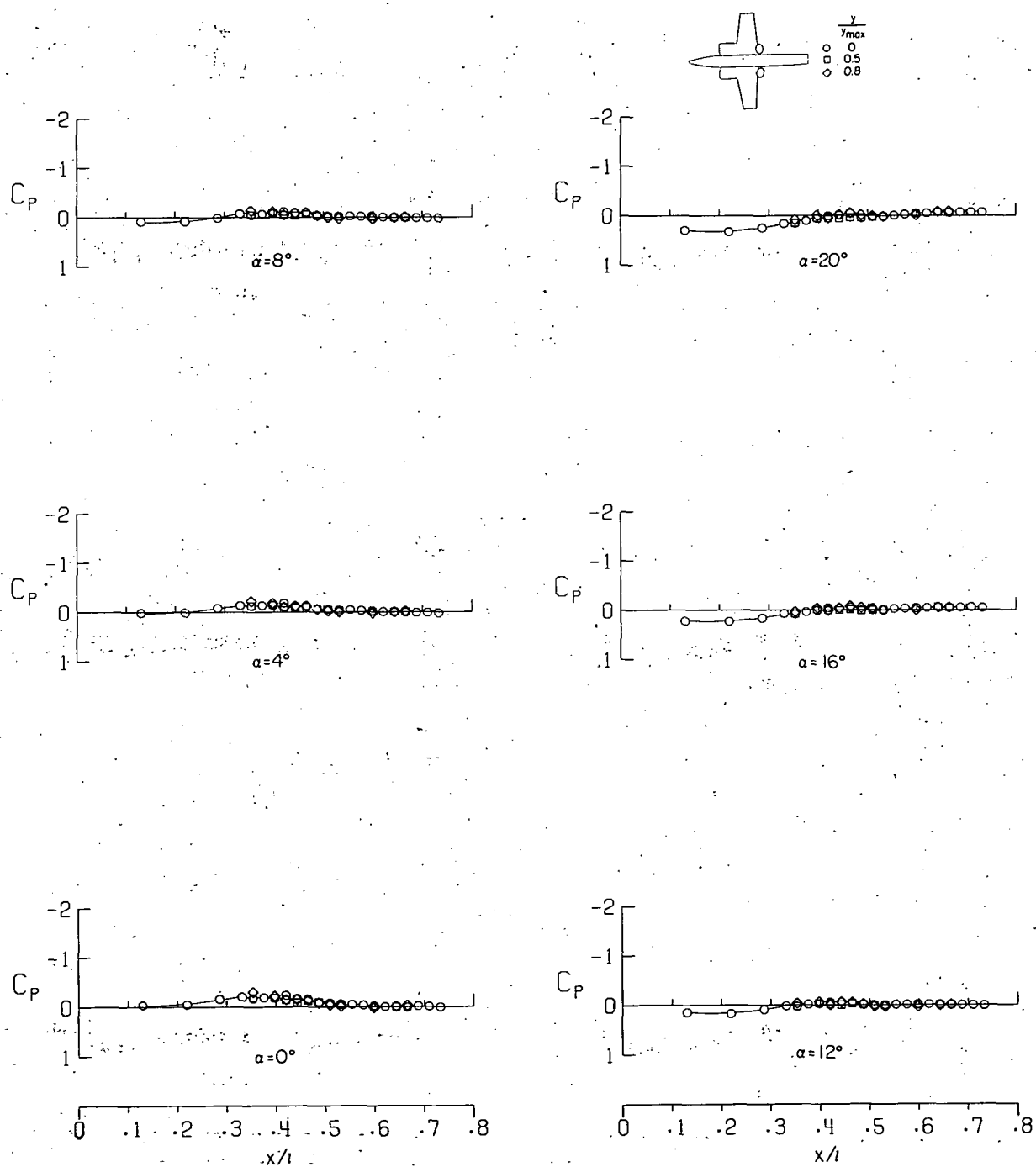
(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 18.- Continued.



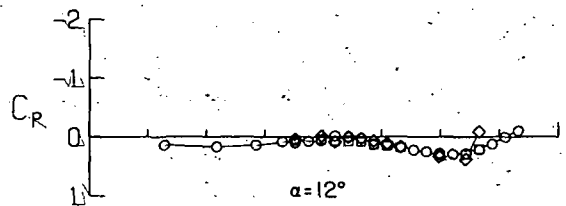
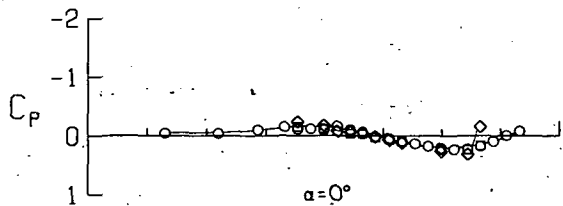
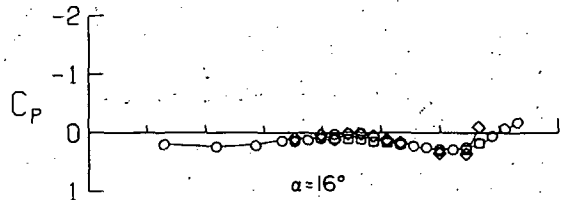
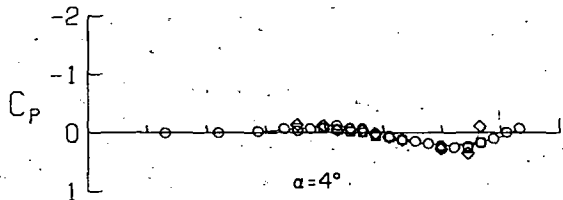
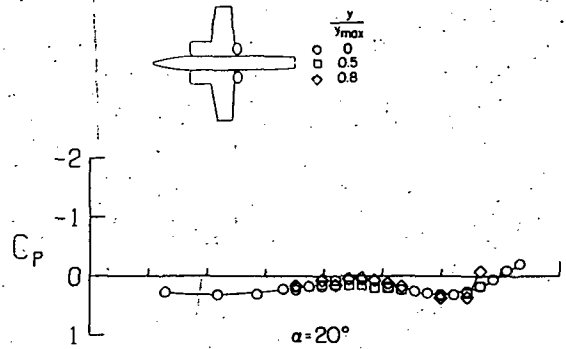
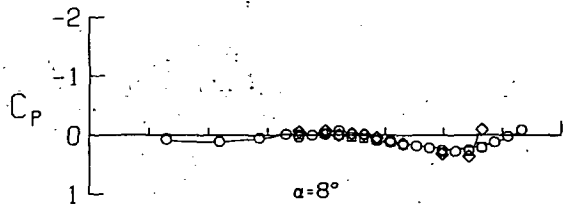
(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 18.- Concluded.

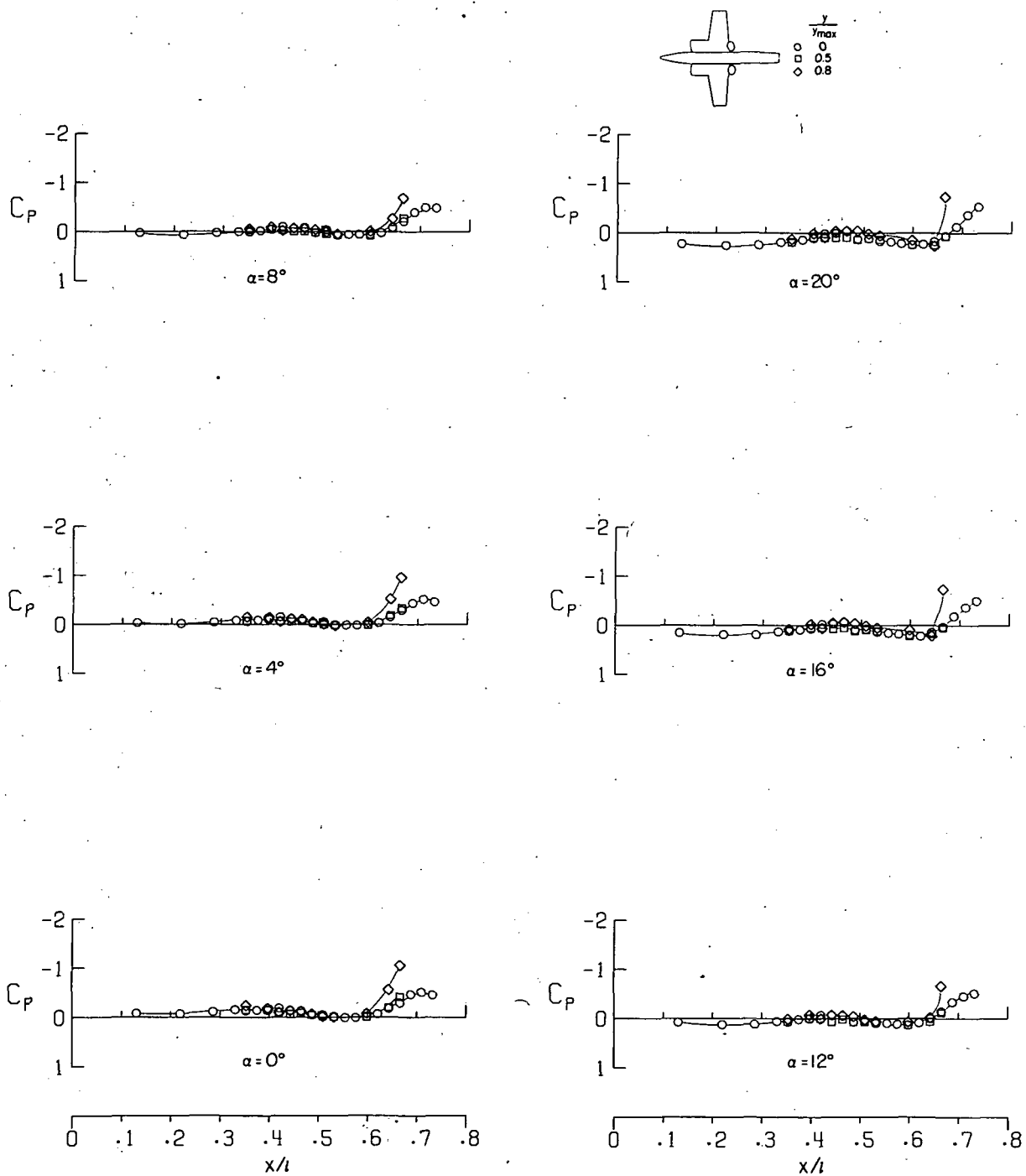


(a)  $(V_\infty/V_j)_e \approx \infty$

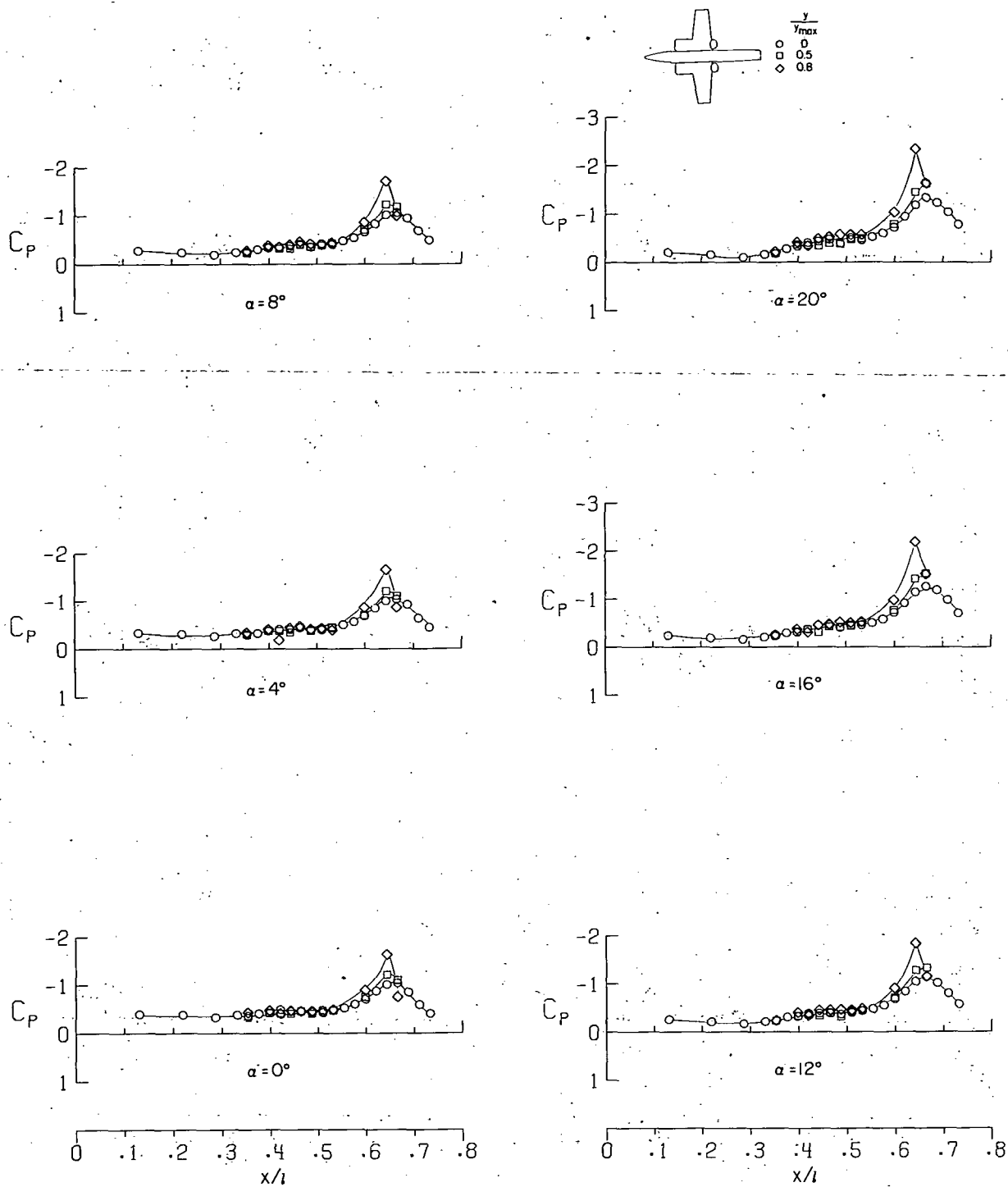
Figure 19.- Pressure distributions on the fuselage for the rear 45° nozzle configuration.



(b)  $(V_\infty/V_j)_e \approx 0.3$ .  
Figure 19.- Continued.

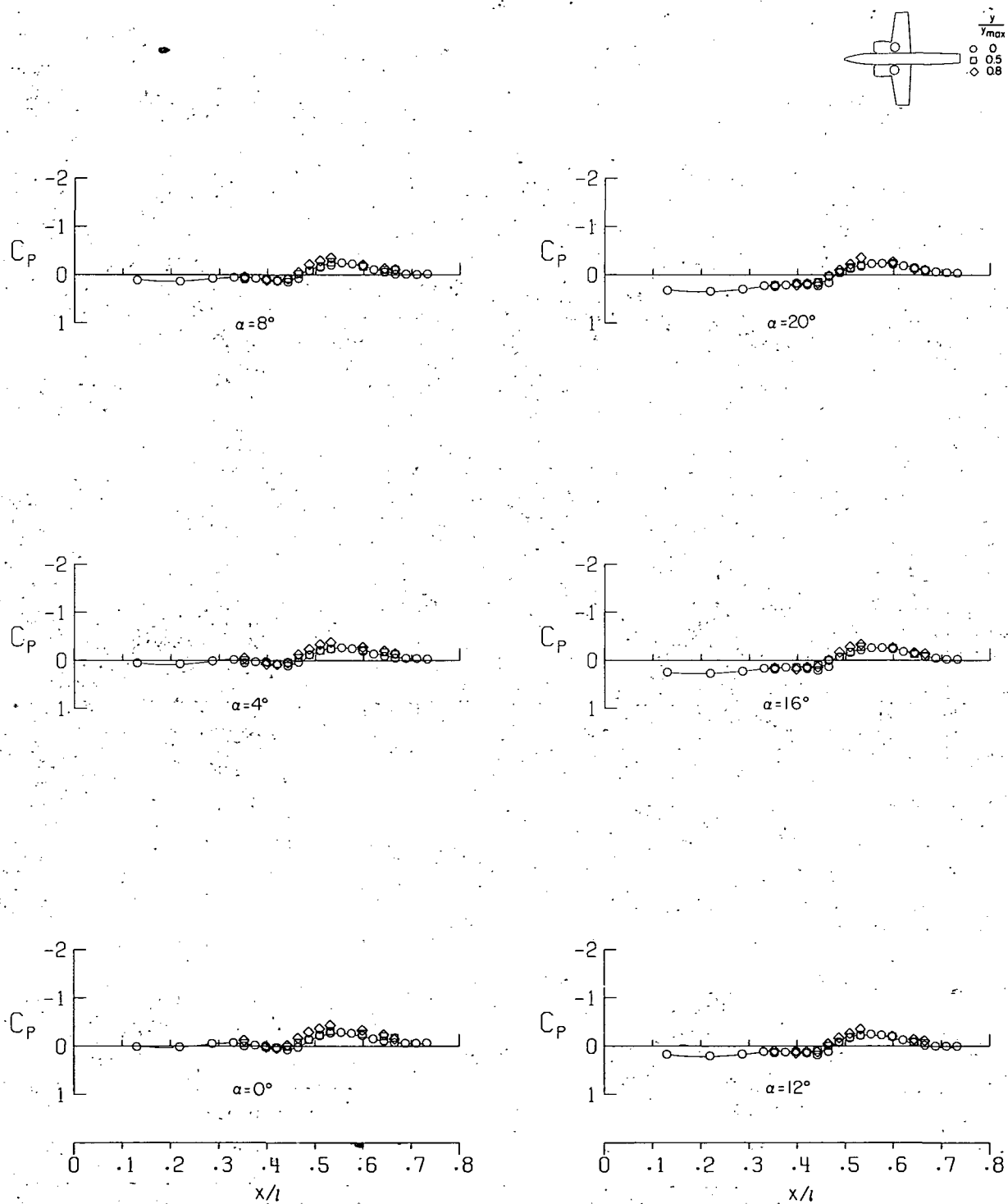


(c)  $(V_\infty/V_j)_e \approx 0.2$ .  
Figure 19.- Continued.



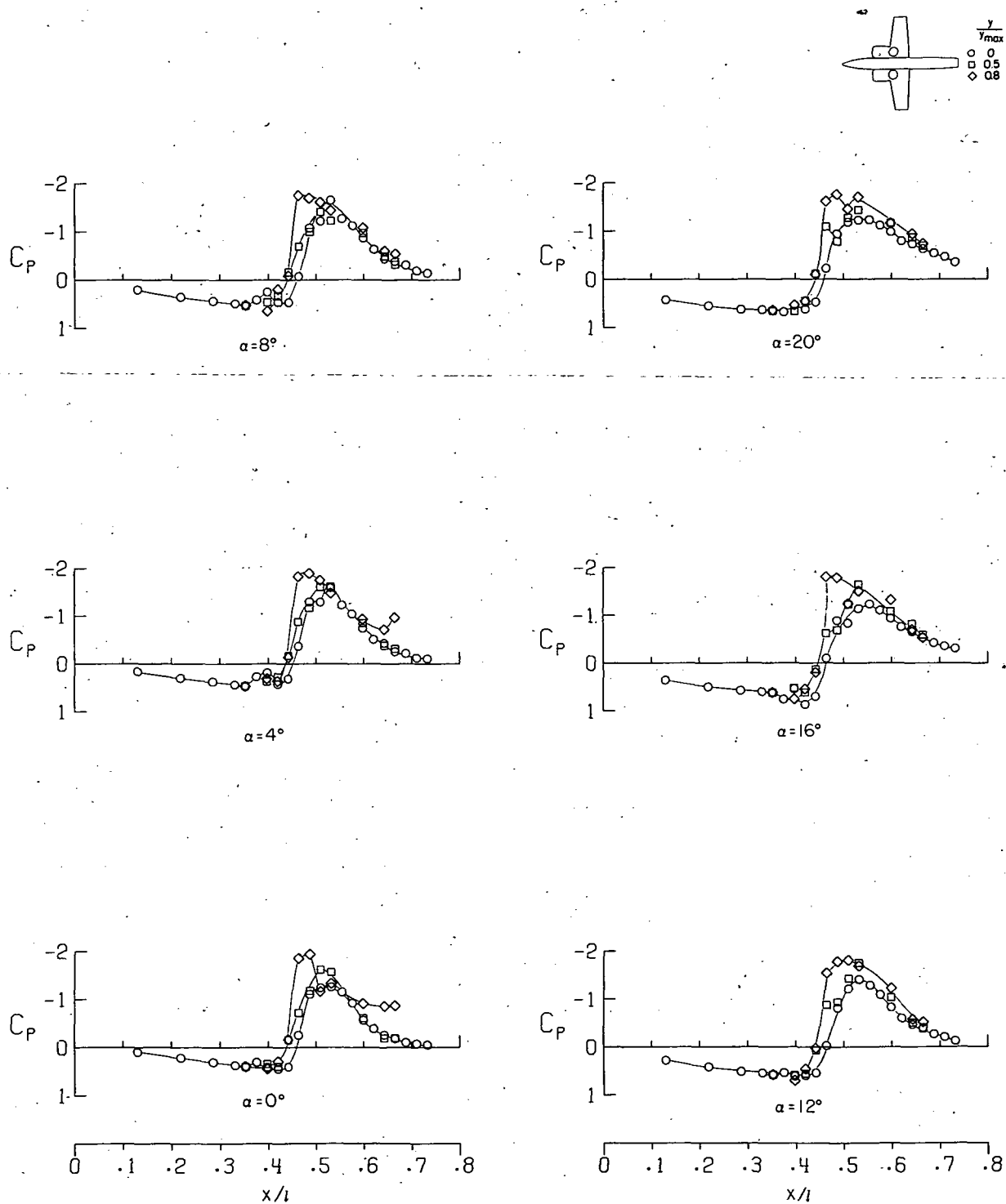
(d)  $(V_\infty/V_j)_e \approx 0.1$ .  
Figure 19.- Concluded.





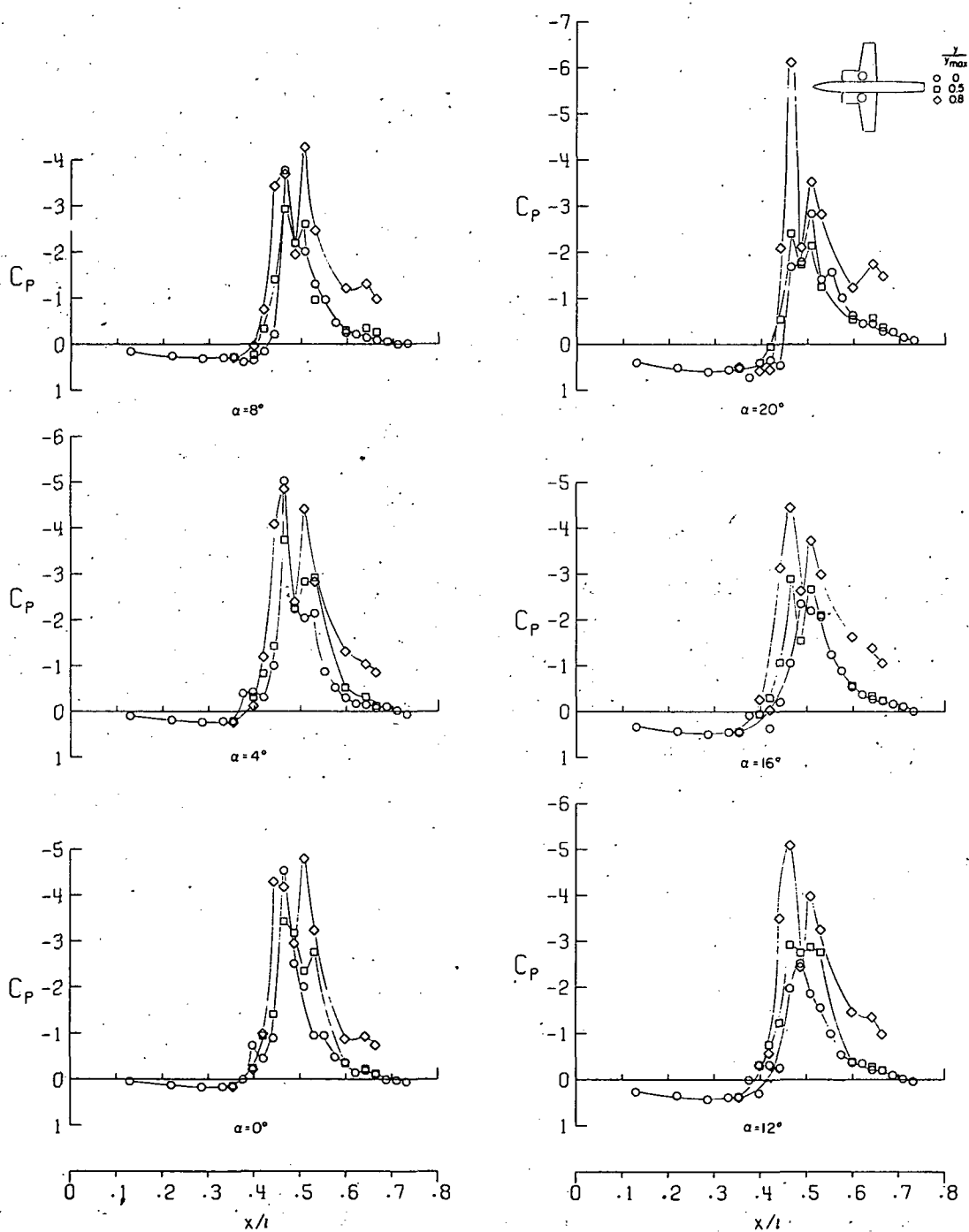
(a)  $(V_\infty/V_j)_e \approx \infty$ .

Figure 20.- Pressure distributions on the fuselage for the forward 90° nozzle configuration.

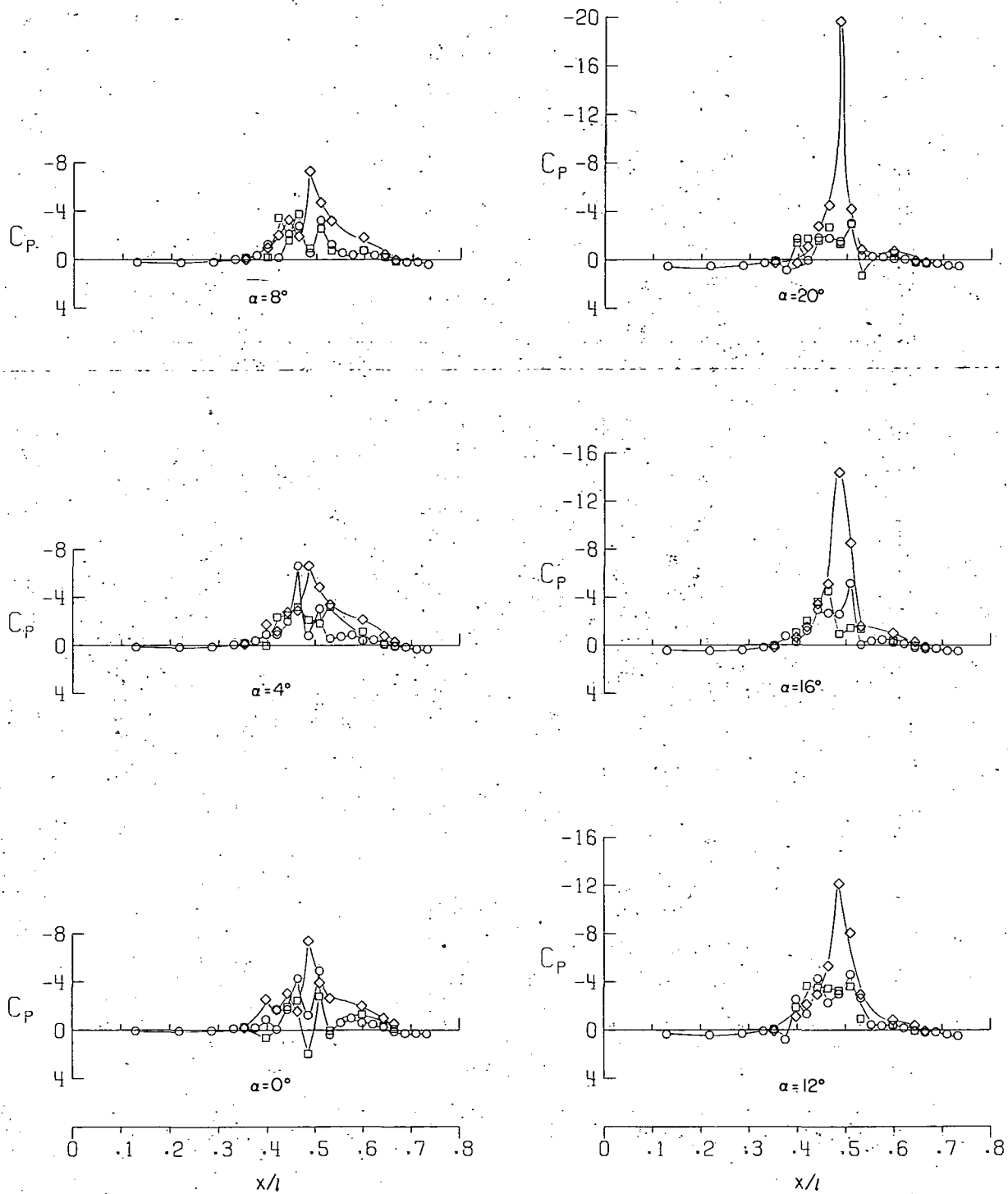


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 20.- Continued.

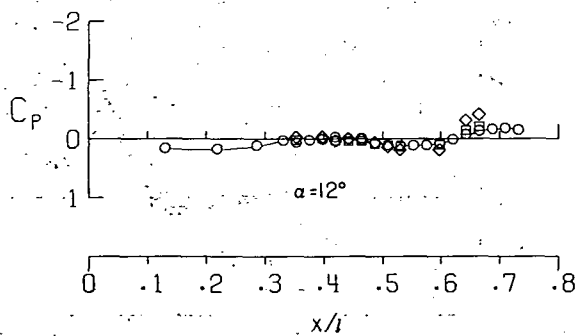
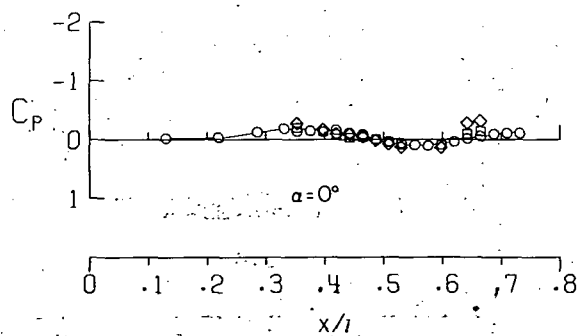
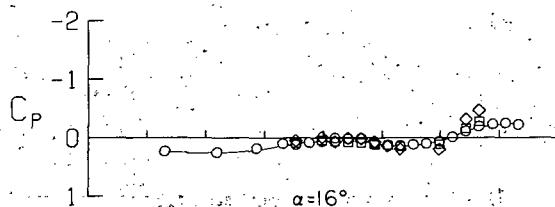
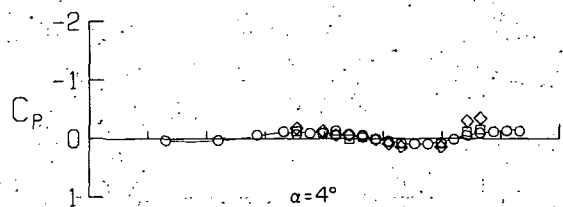
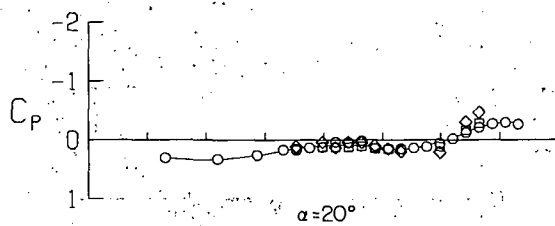
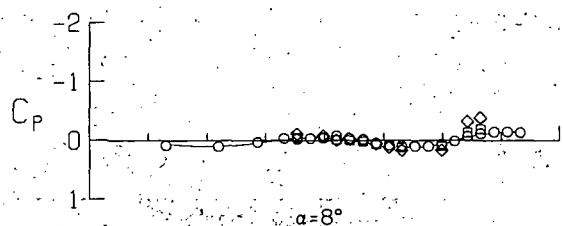
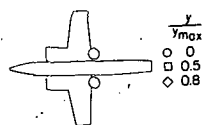


(c)  $(V_\infty/V_j)_e \approx 0.2$ .  
Figure 20.- Continued.



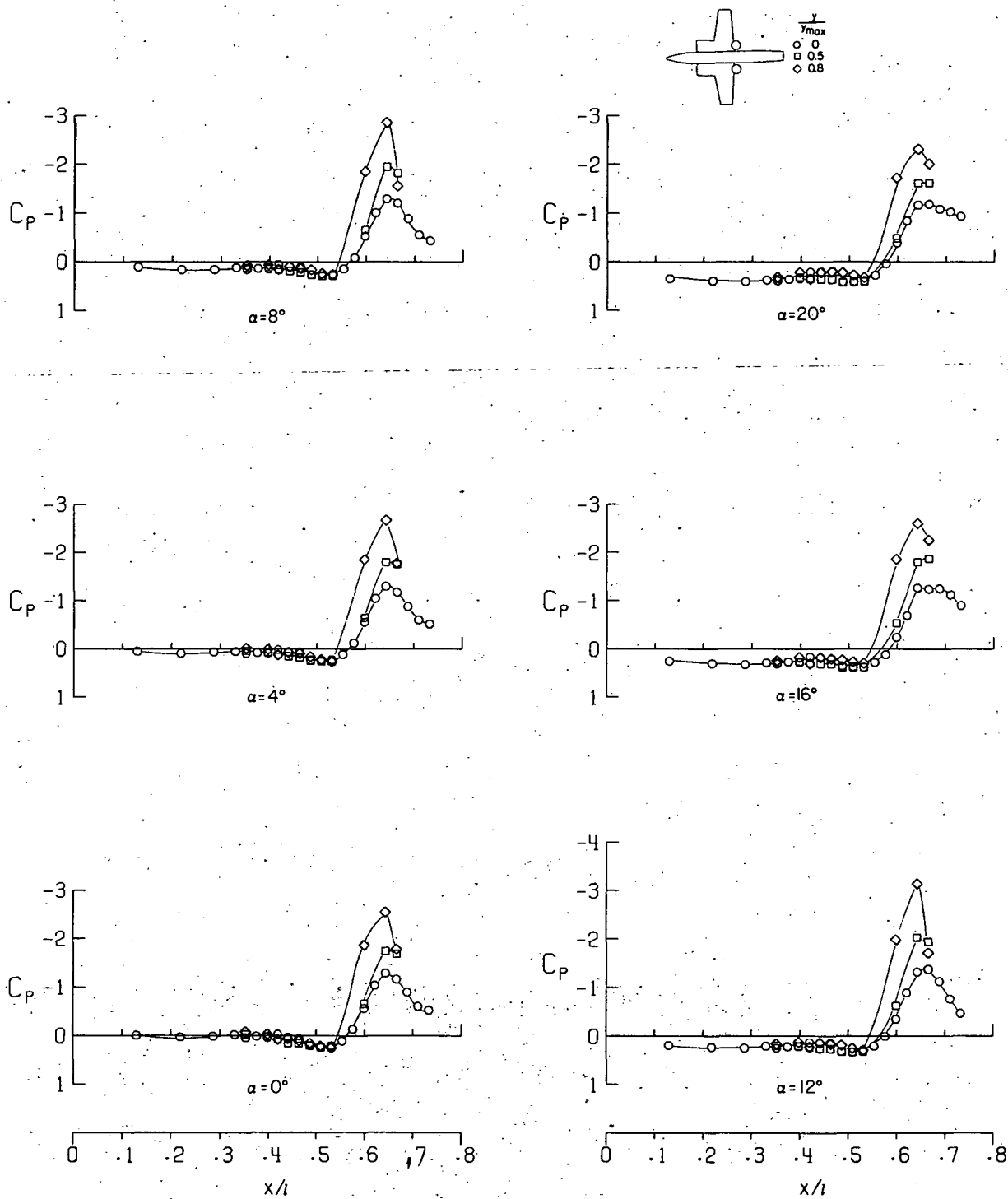
(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 20.- Concluded.



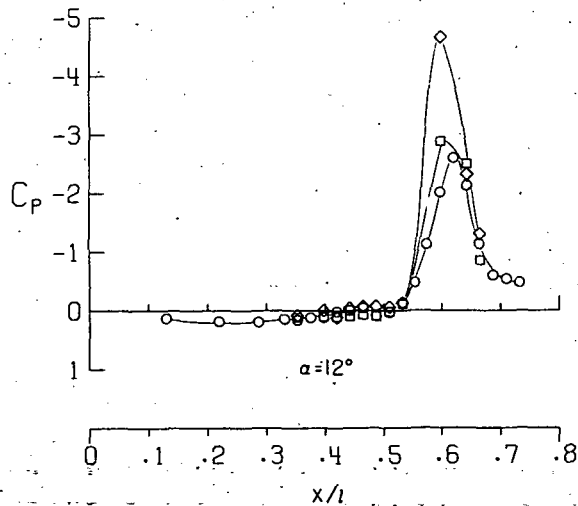
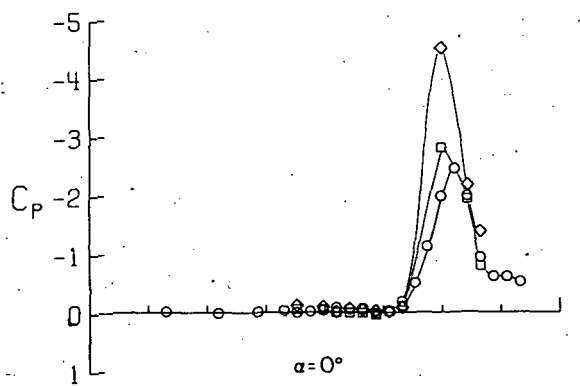
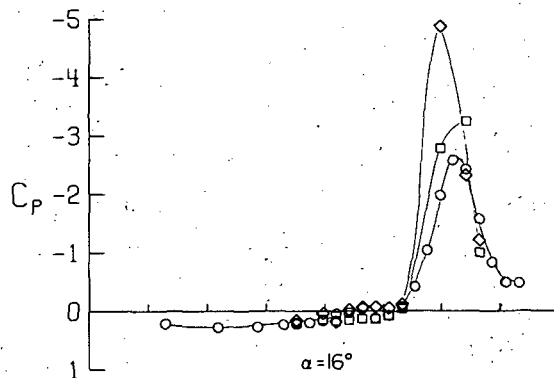
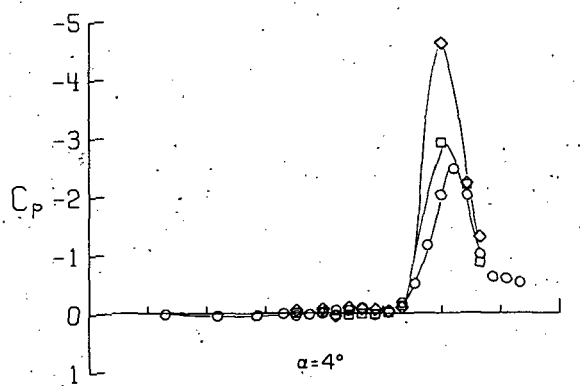
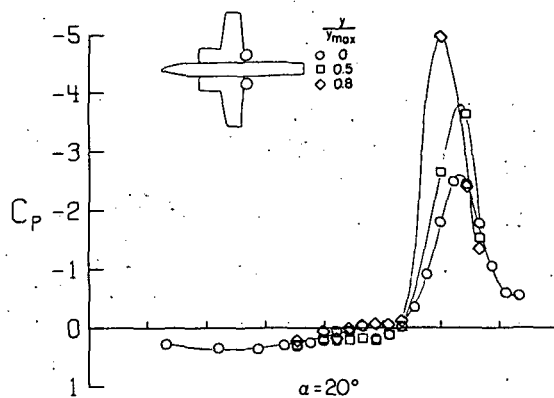
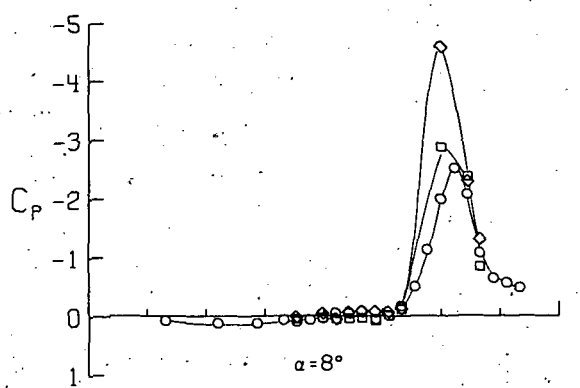
(a)  $(V_\infty/V_j)_e \approx \infty$ .

Figure 21.- Pressure distributions on the fuselage for the rear 90° nozzle configuration.



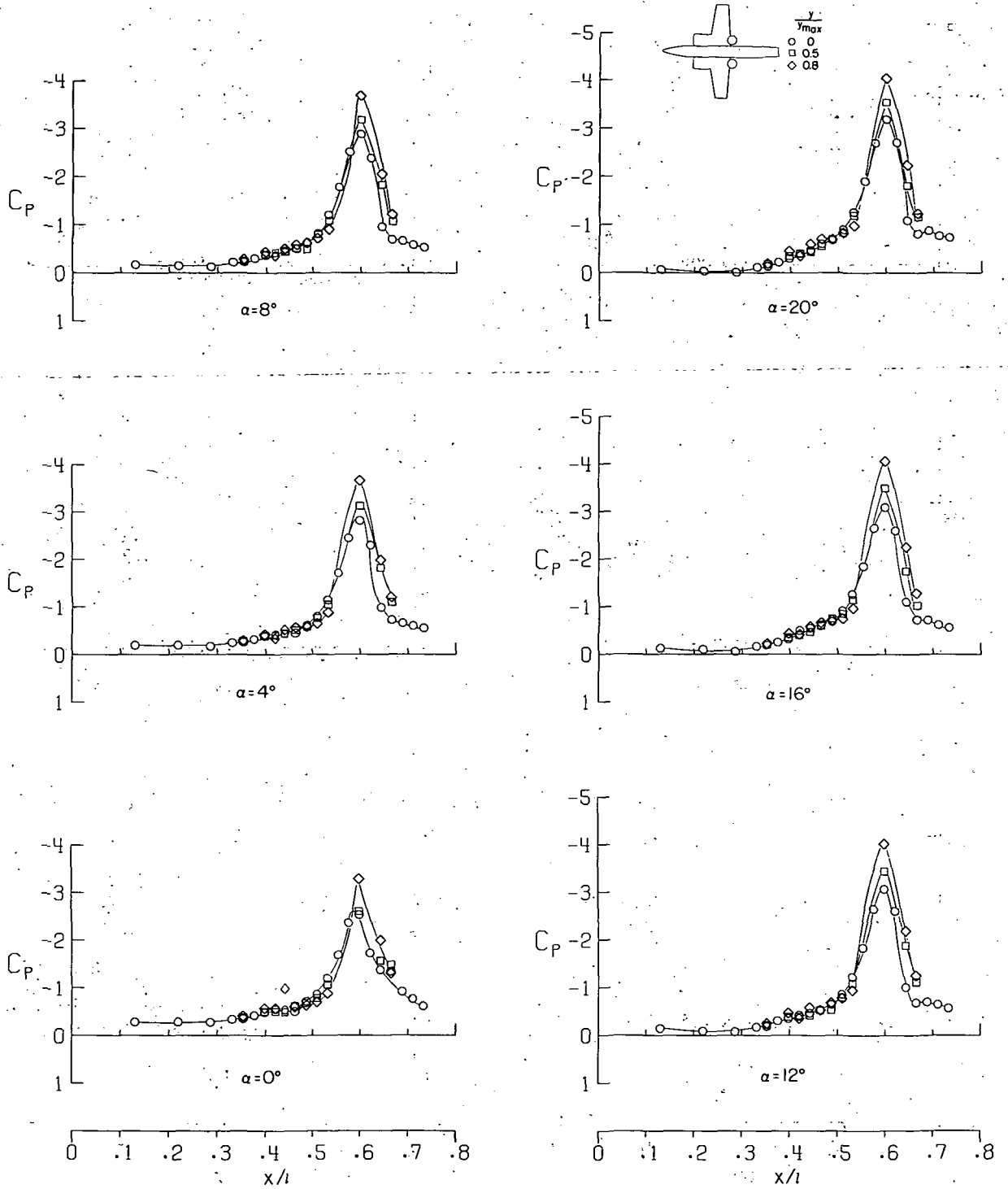
(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 21.- Continued.



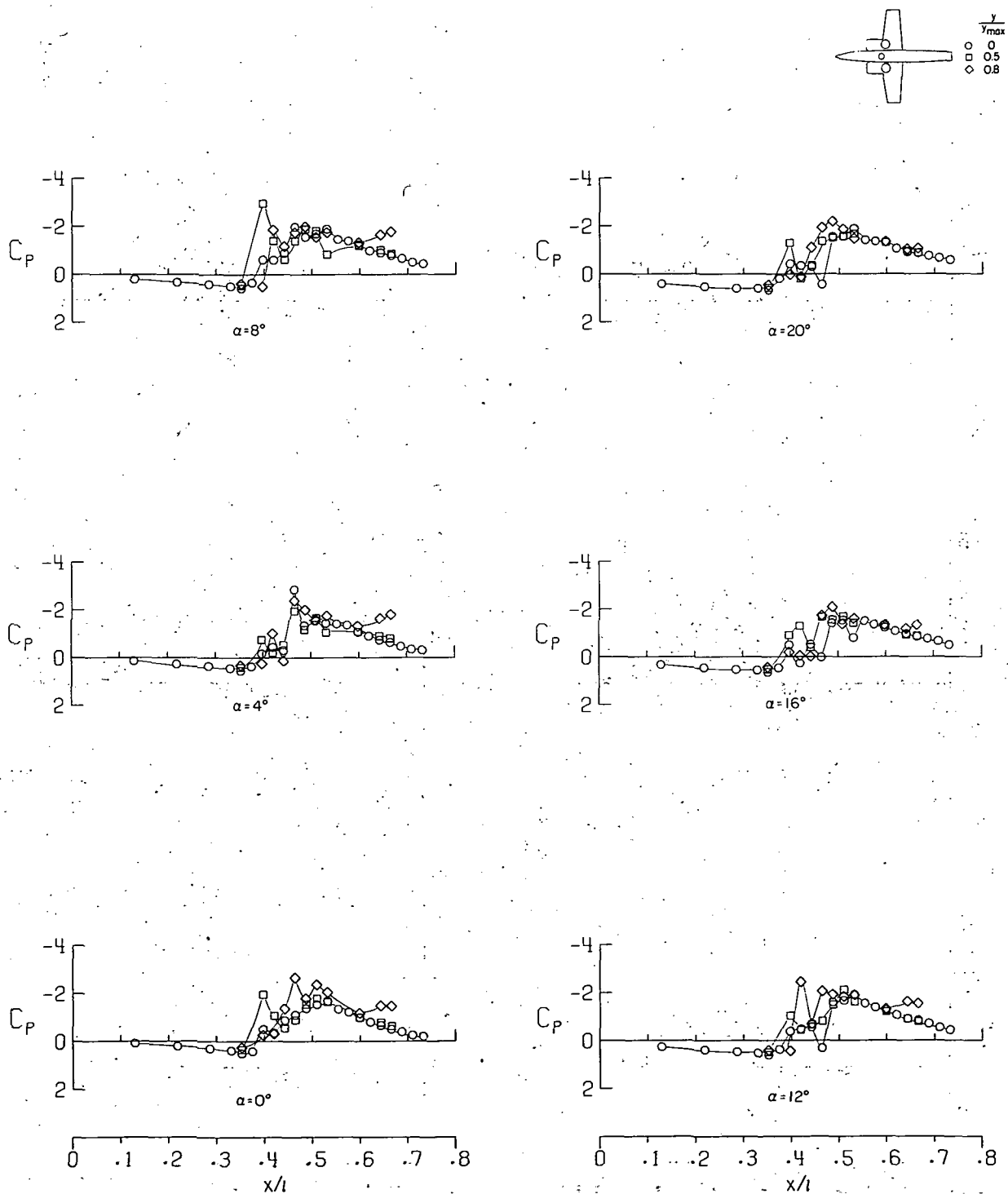
(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 21.- Continued.



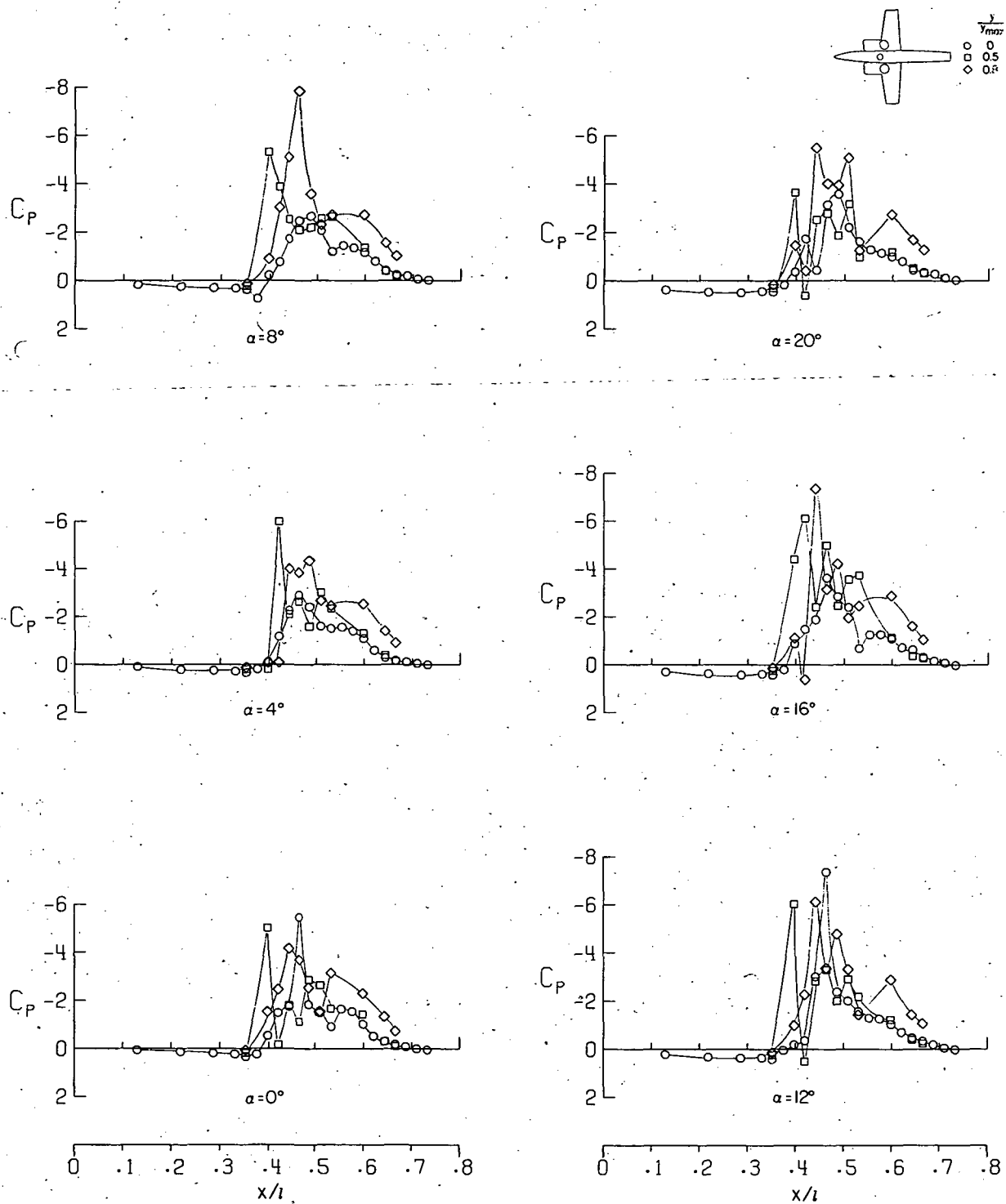
(d)  $(V_\infty/V_{j_e}) \approx 0.1$ .  
Figure 21.- Concluded.





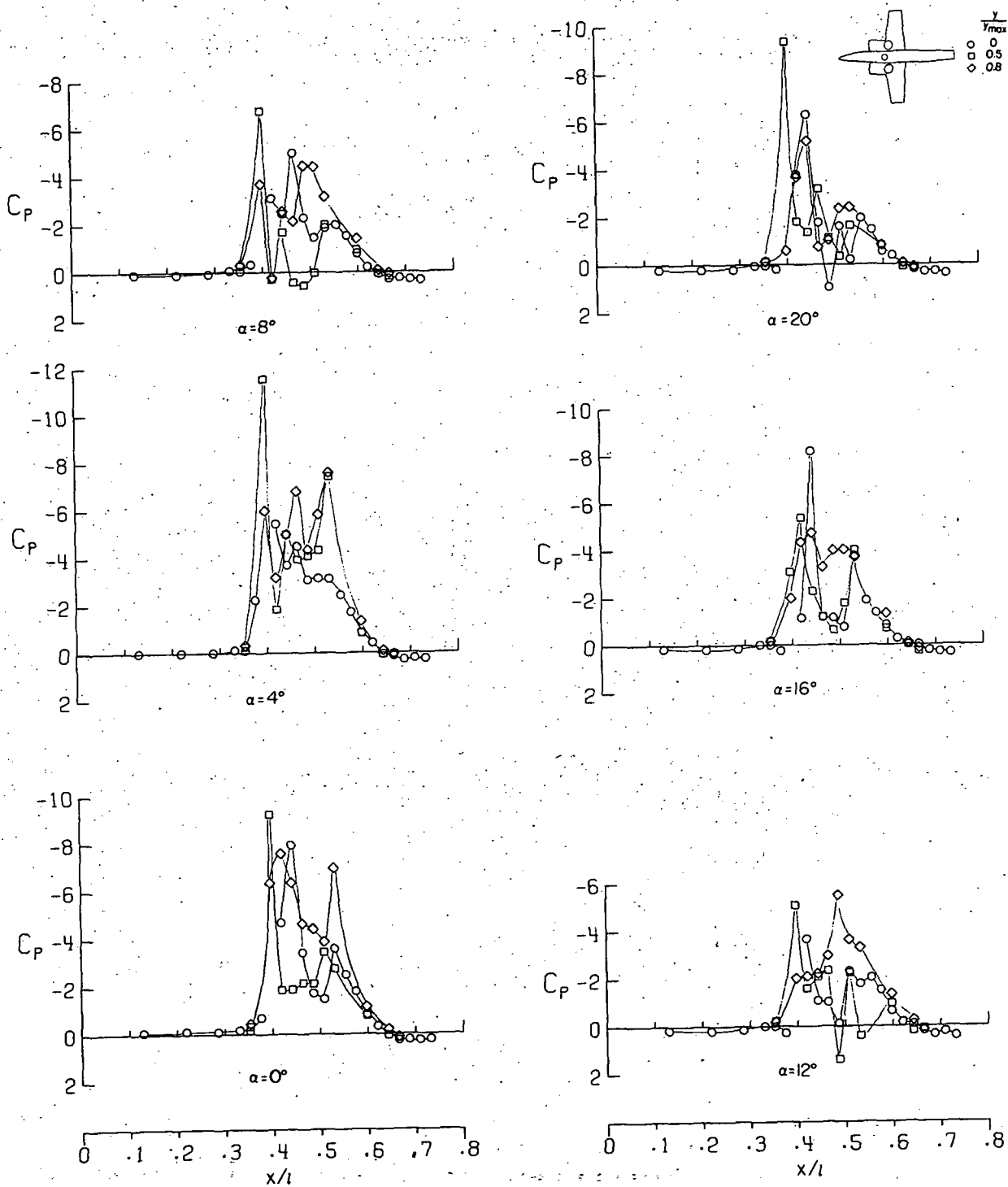
(a)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 22.- Pressure distributions on the fuselage for the lift-jet and forward 90° nozzle configuration.



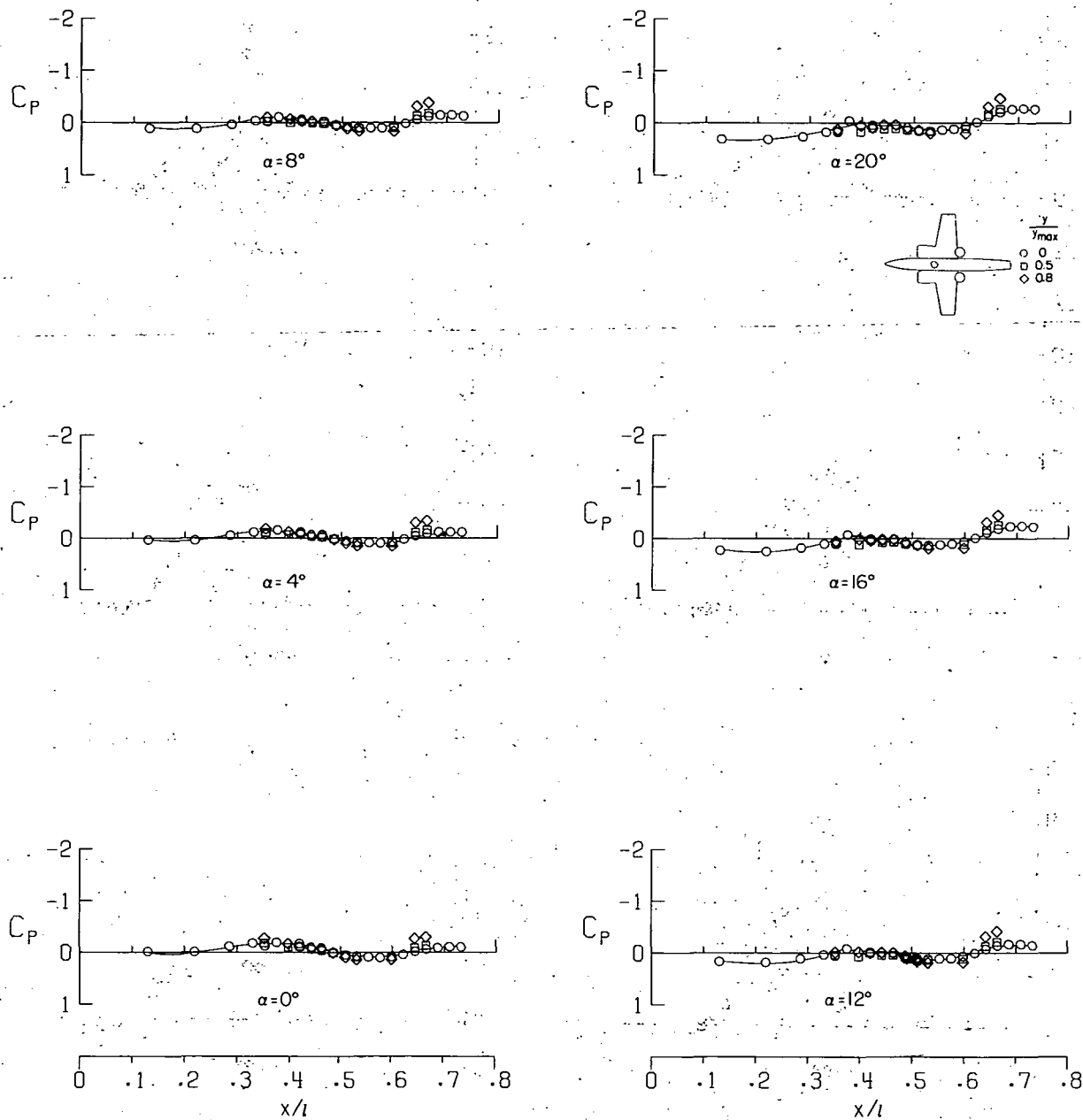
(b)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 22.- Continued.



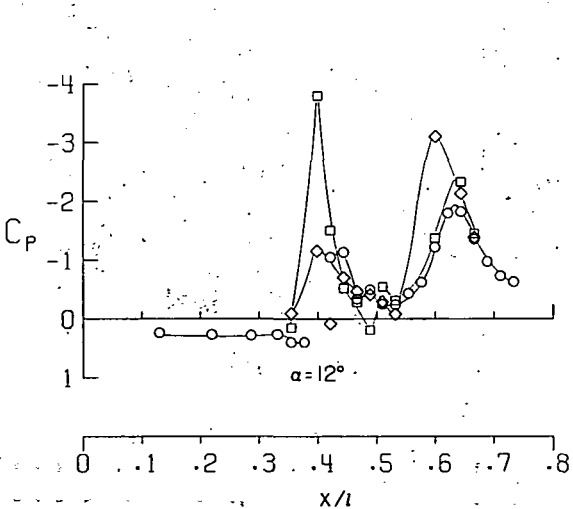
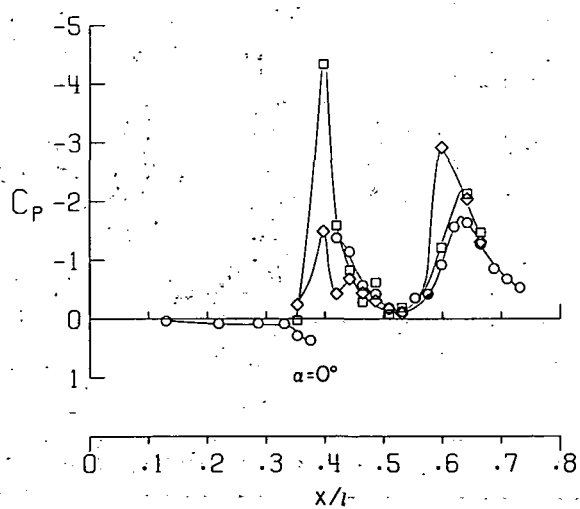
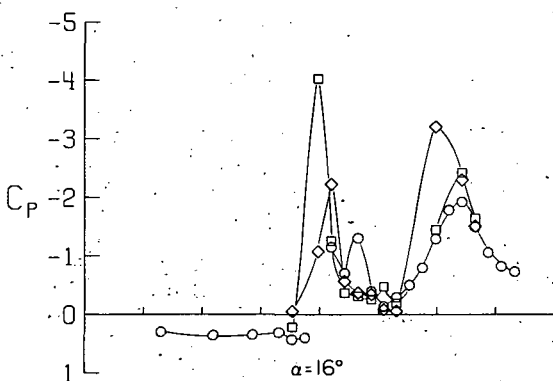
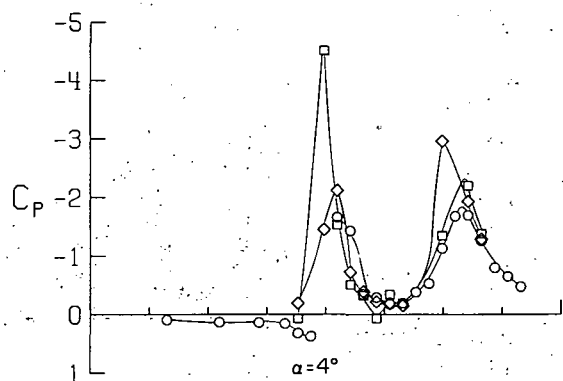
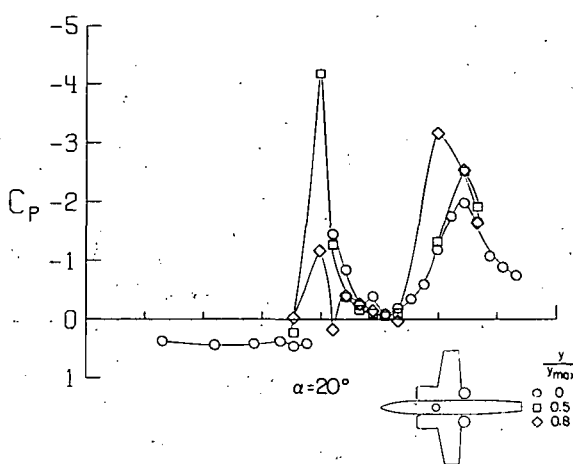
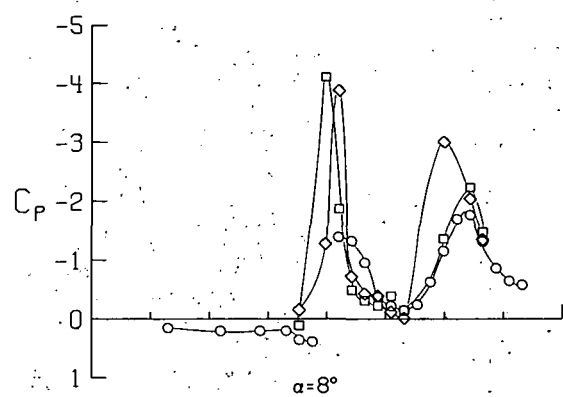
(c)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 22.- Concluded.

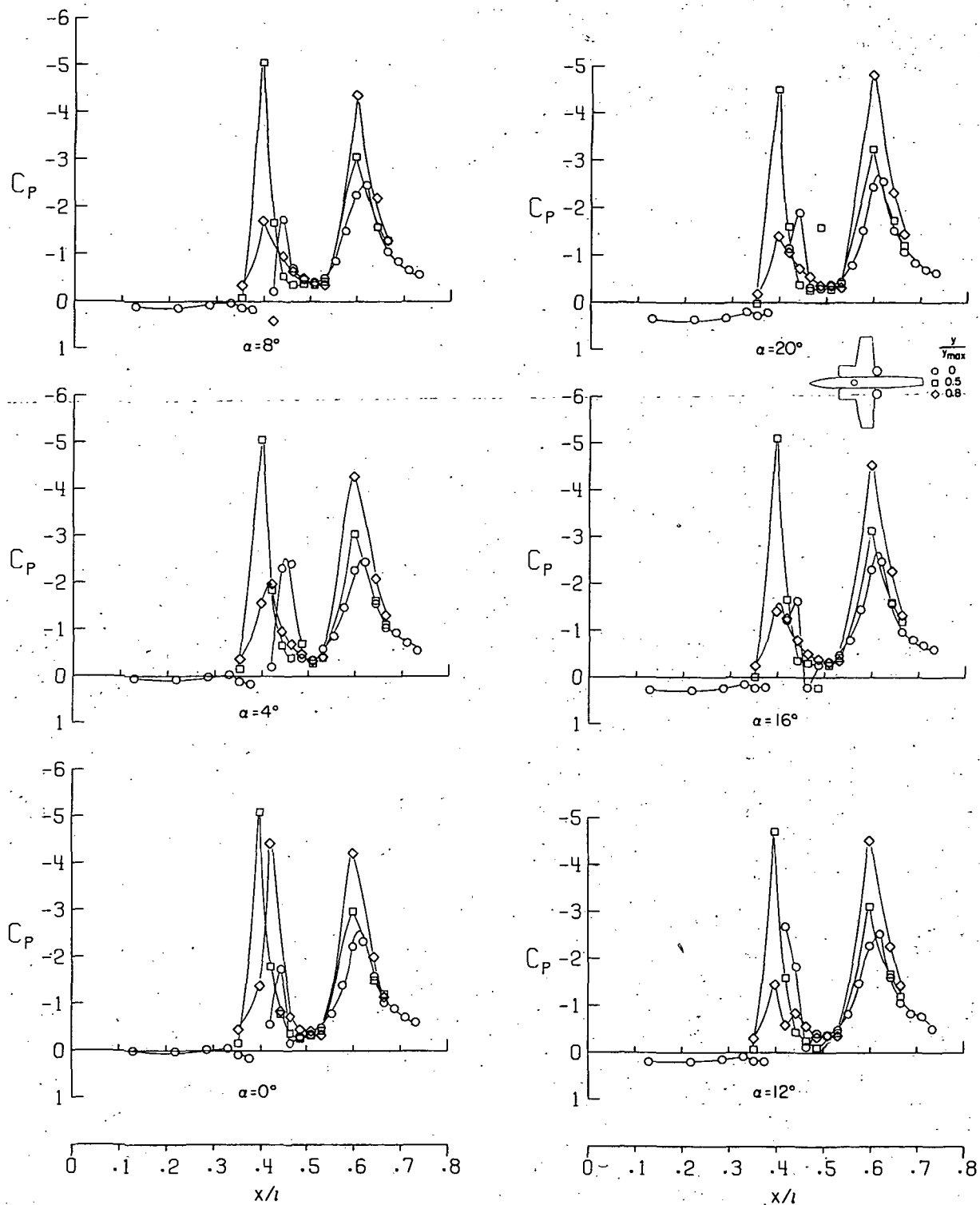


(a)  $(V_\infty/V_j)_e \approx \infty$ .

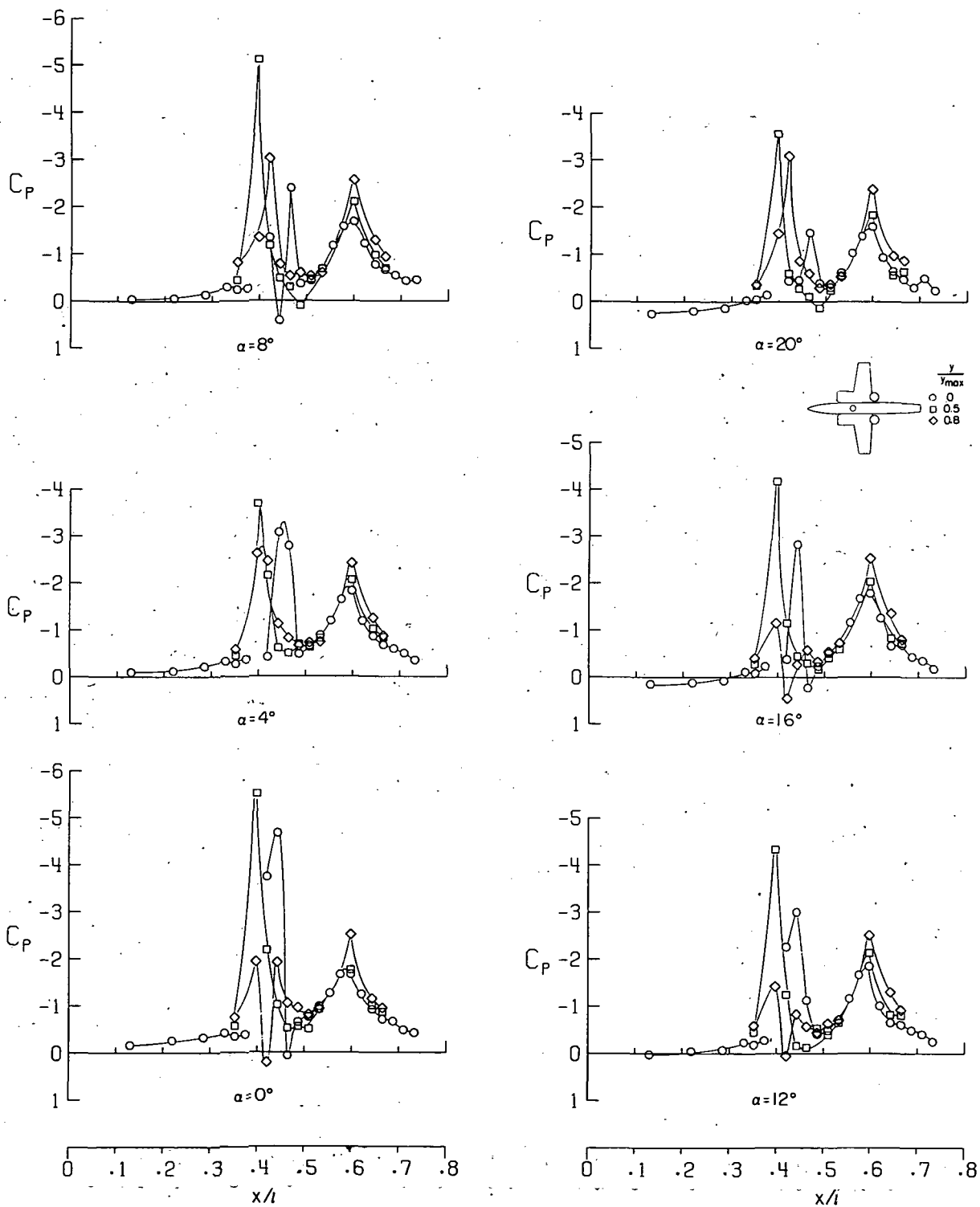
Figure 23.- Pressure distributions on the fuselage for the lift-jet and rear  $90^\circ$  nozzle configuration.



(b)  $(V_\infty/V_j)_e \approx 0.3$ .  
Figure 23.- Continued.

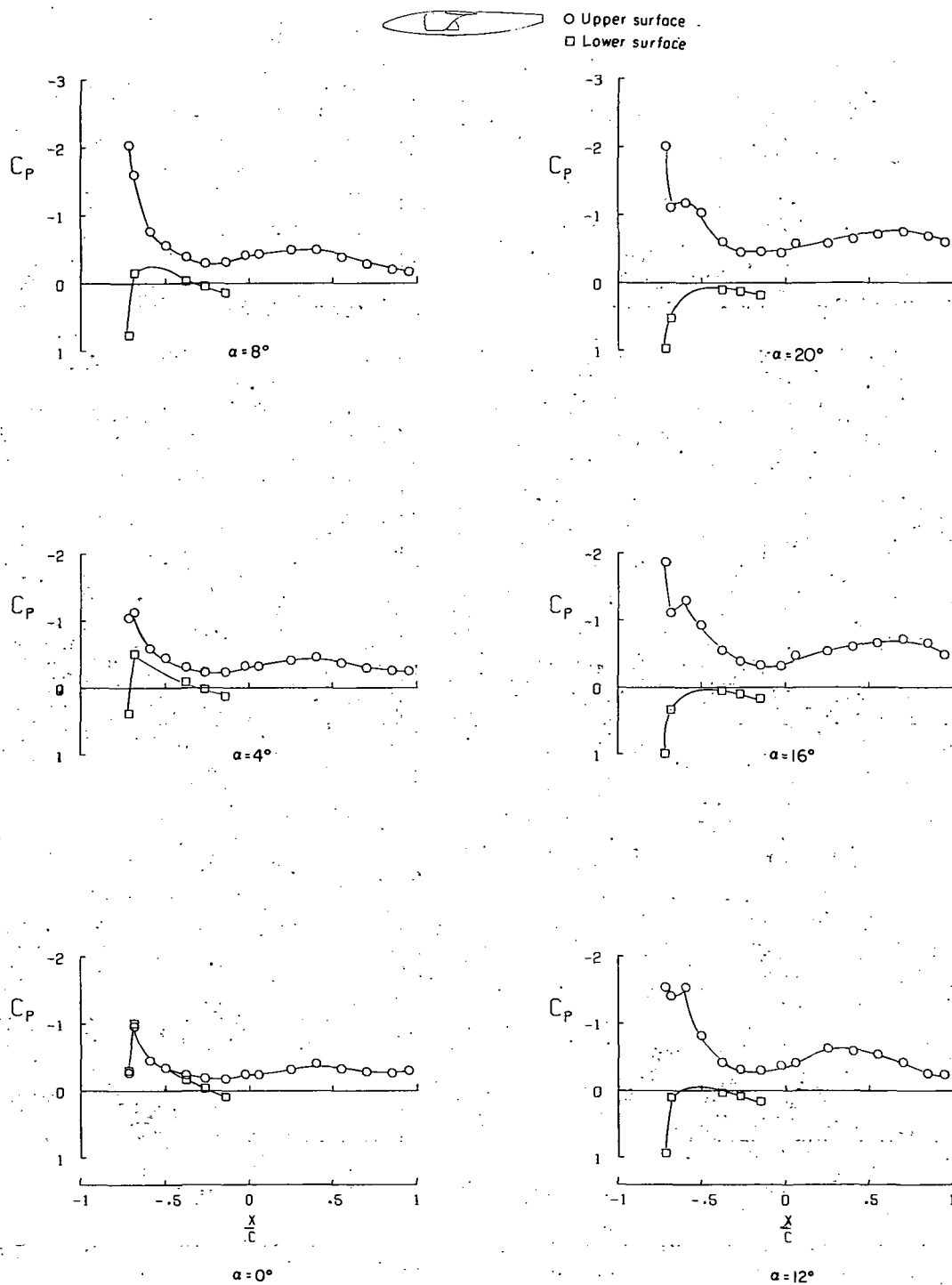


(c)  $(V_\infty/V_j)_e \approx 0.2$ .  
Figure 23.- Continued.



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

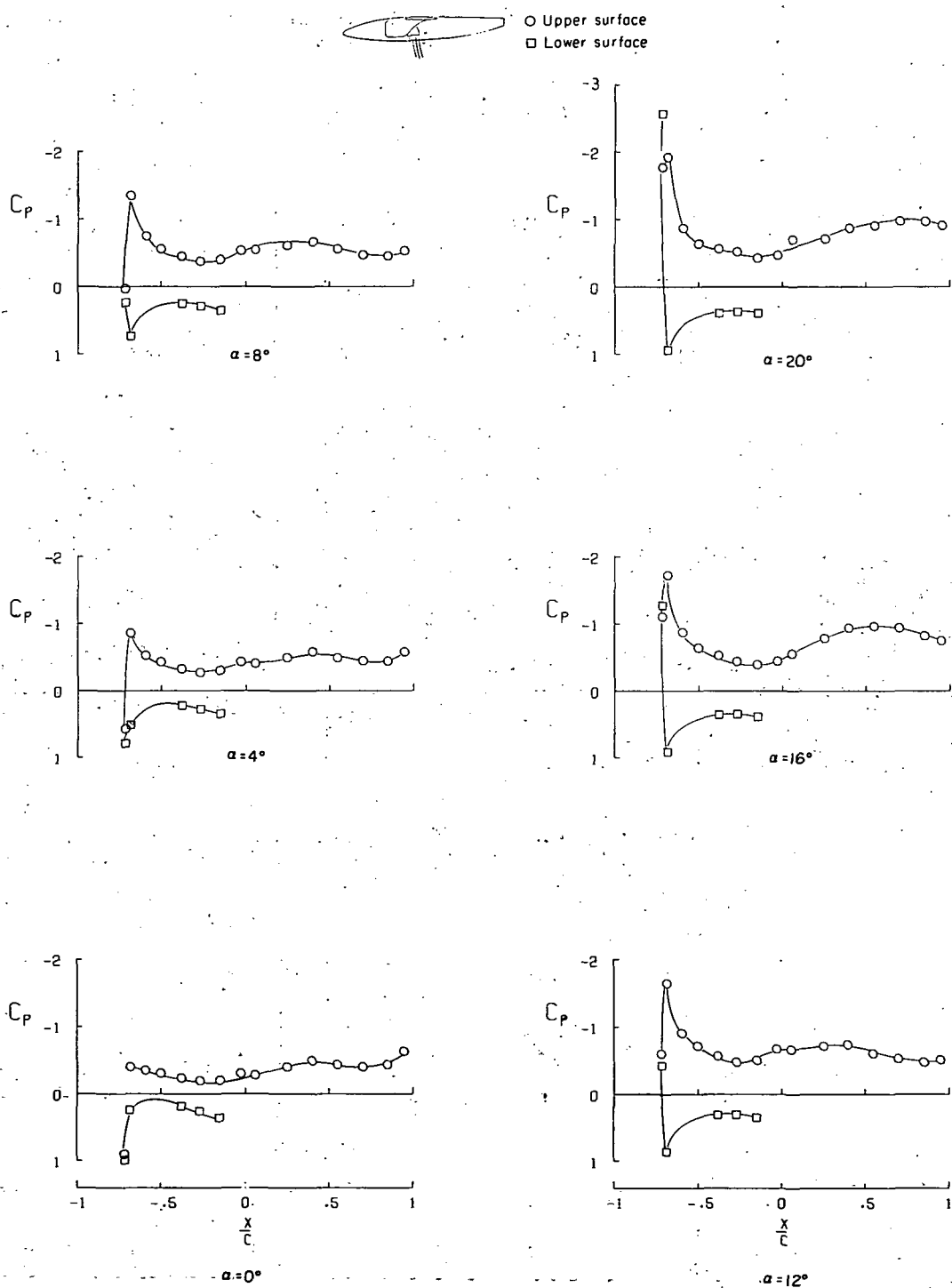
Figure 23.- Concluded.



(a)  $(V_\infty/V_j)_e \approx \infty$ .

Figure 24.- Pressure distributions on the nacelle for the forward 90° nozzle configuration.

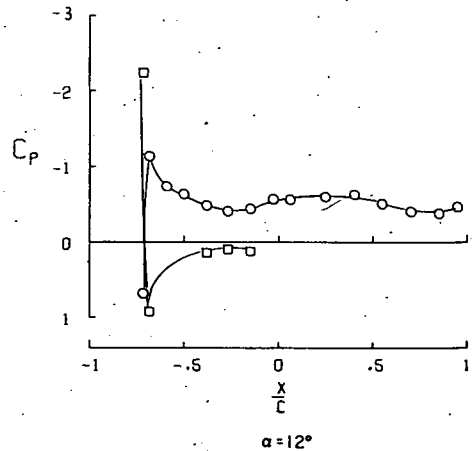
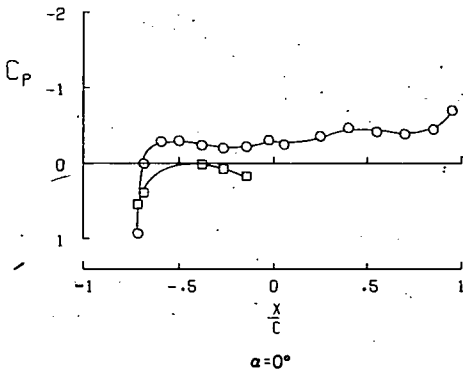
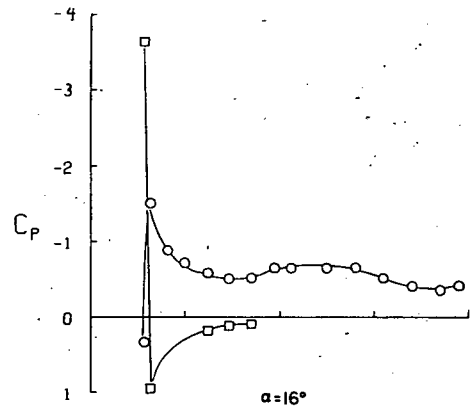
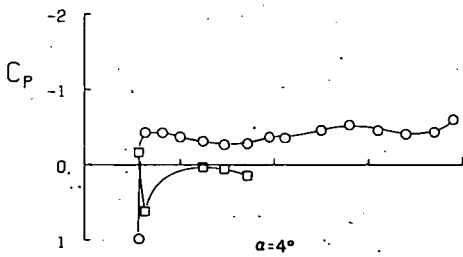
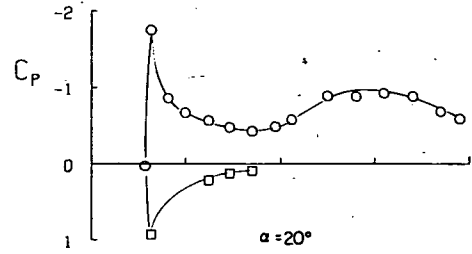
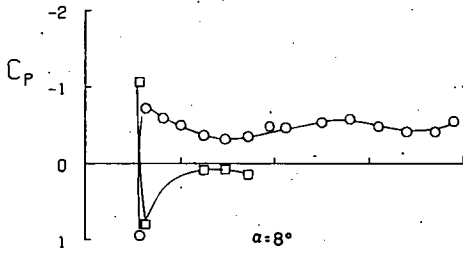




(b)  $(V_\infty/V_j)_e \approx 0.3$ .  
 Figure 24.- Continued.



○ Upper surface  
□ Lower surface

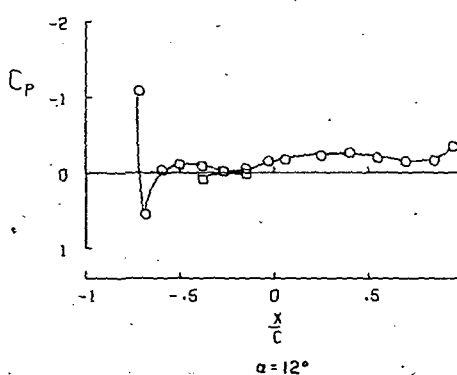
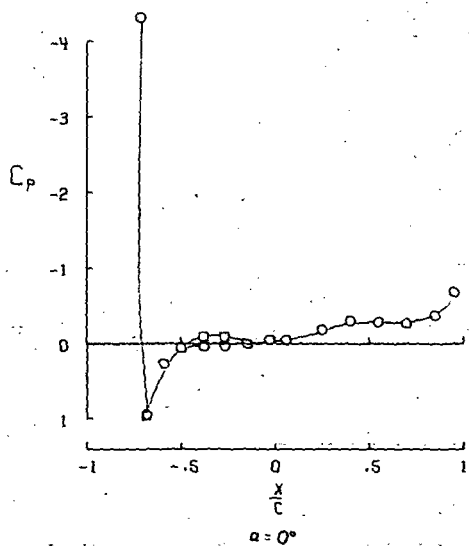
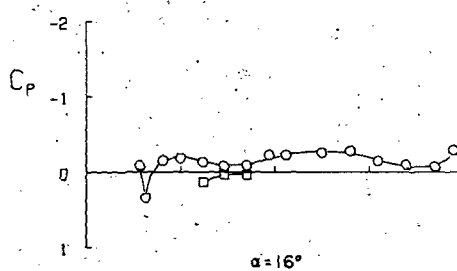
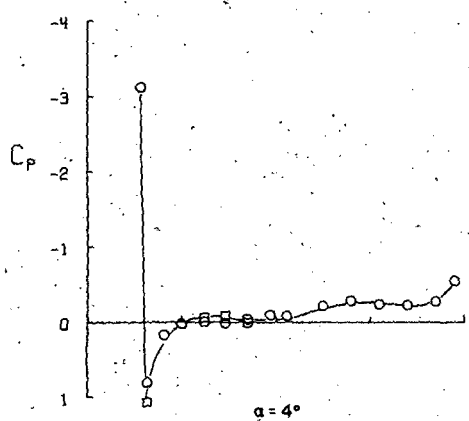
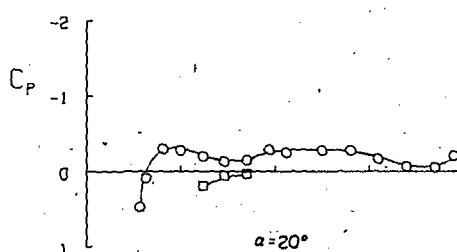
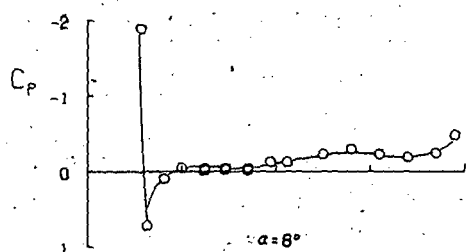


(c)  $(V_\infty/V_j)_e \approx 0.2$ .

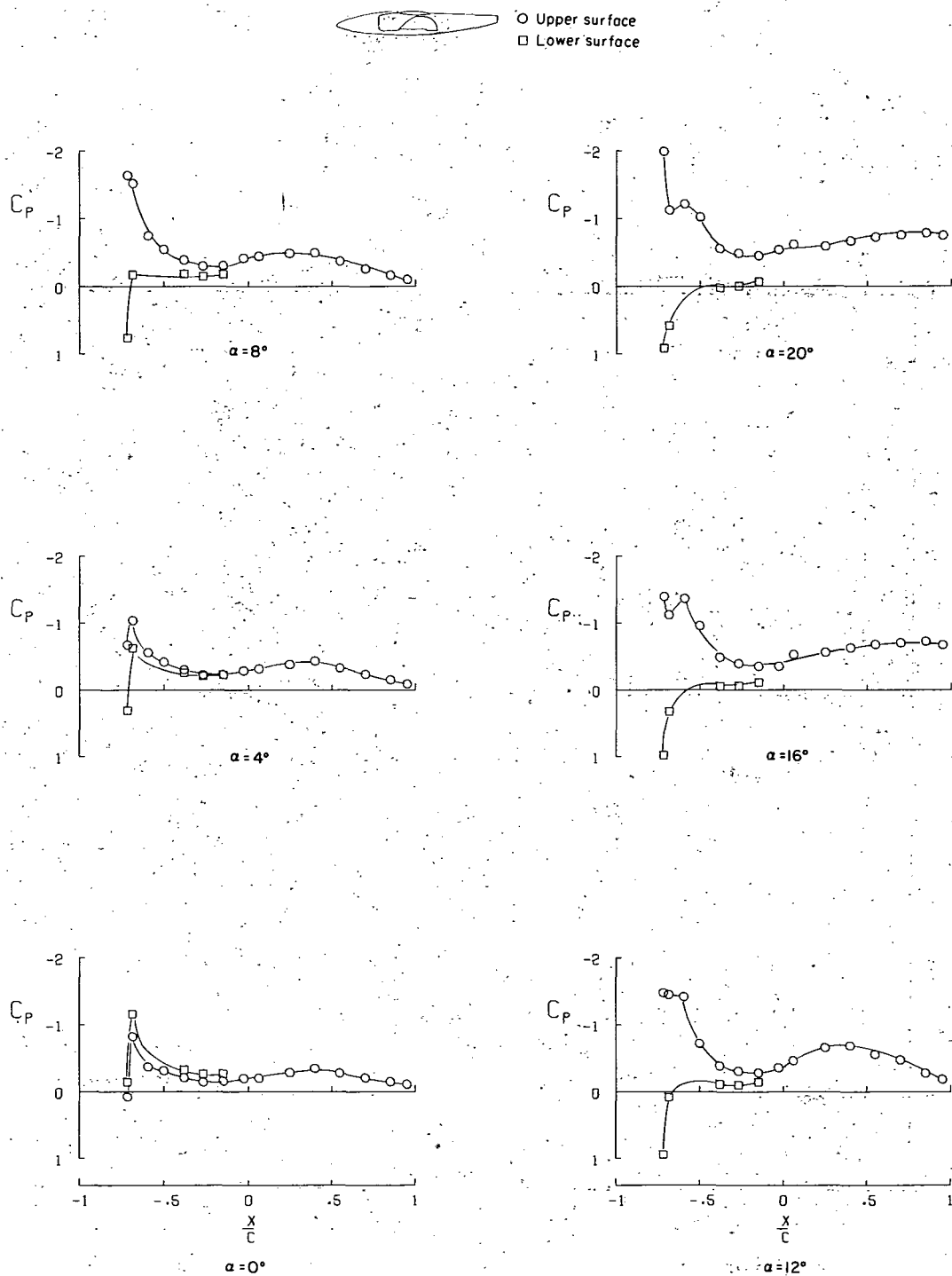
Figure 24.- Continued.



○ Upper surface  
□ Lower surface



(d)  $(V_\infty/V_j)_e \approx 0.1$ .  
Figure 24.- Concluded.

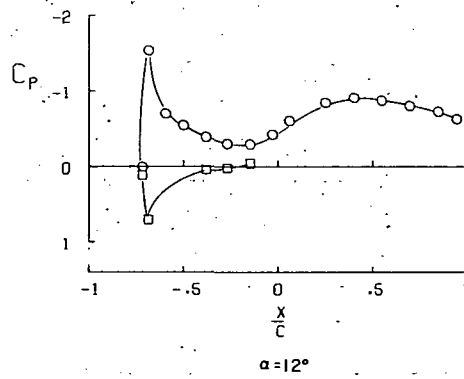
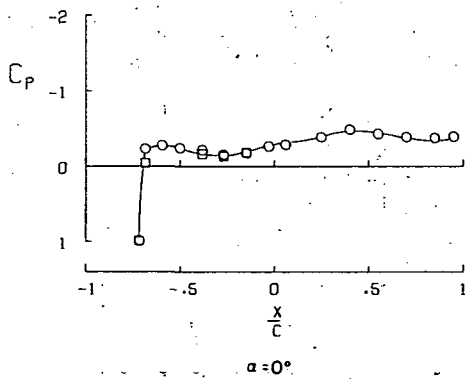
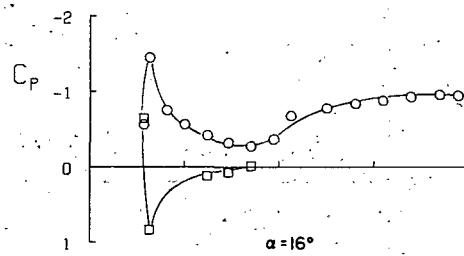
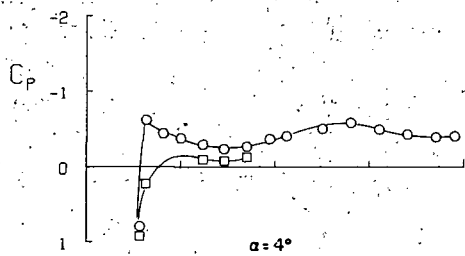
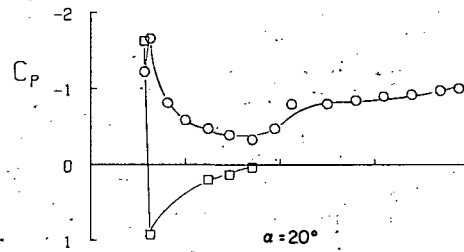
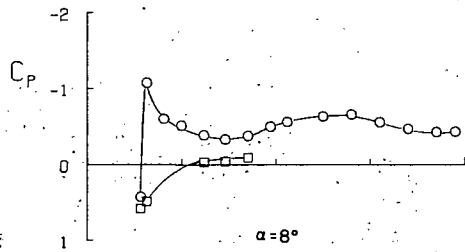


(a)  $(V_\infty/V_j)_e = \infty$

Figure 25.- Pressure distributions on the nacelle for the rear 90° nozzle configuration.



○ Upper surface  
□ Lower surface

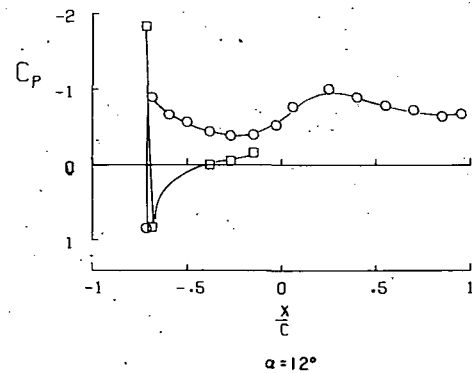
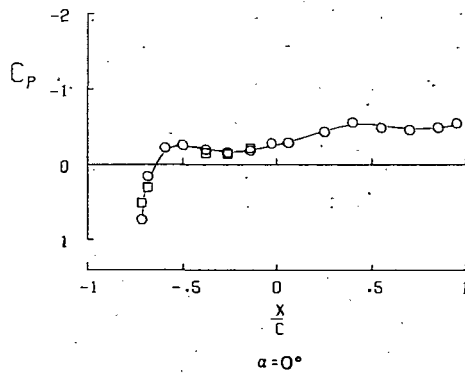
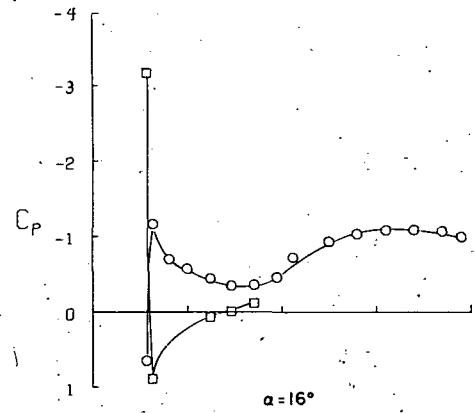
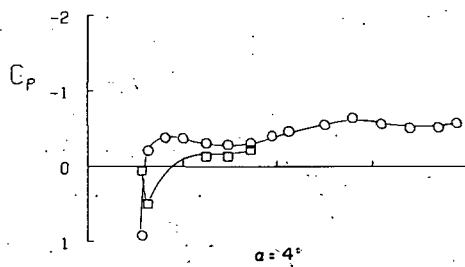
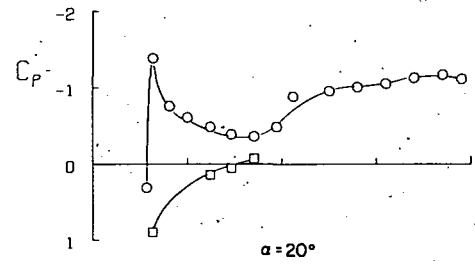
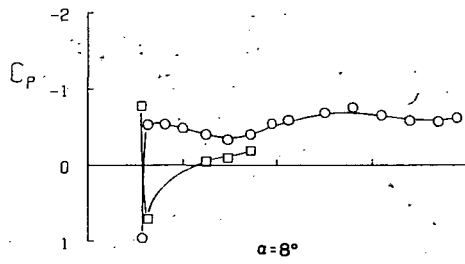


(b)  $(V_\infty/V_j)_e \approx 0.3$ .

Figure 25.- Continued.



○ Upper surface  
□ Lower surface

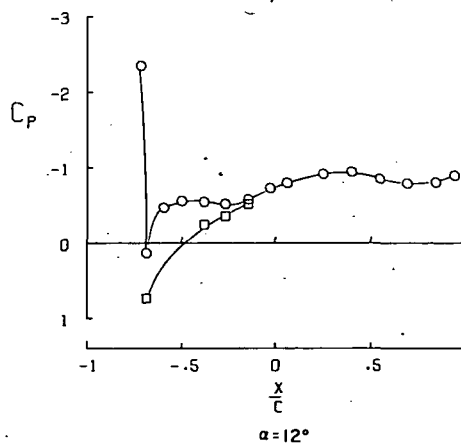
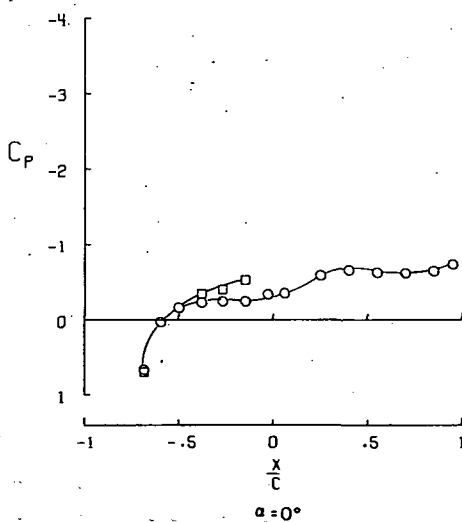
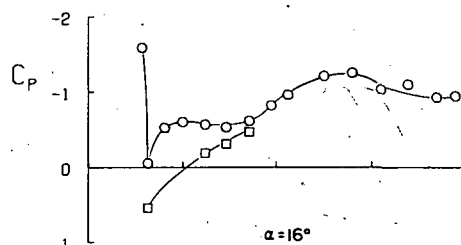
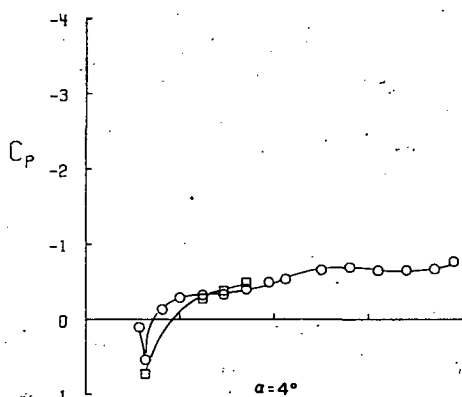
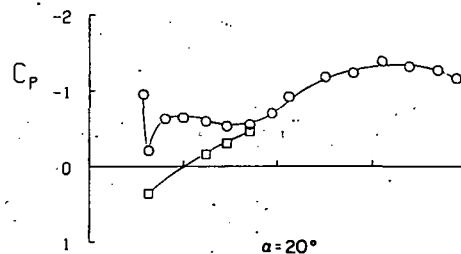
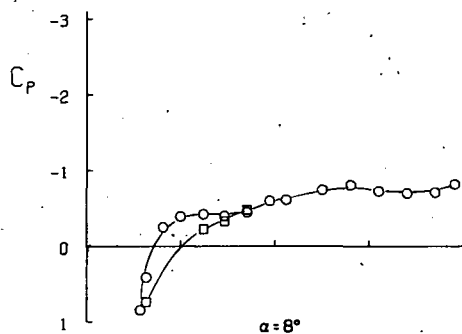


(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 25.- Continued.



○ Upper surface  
□ Lower surface



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 25.- Concluded.

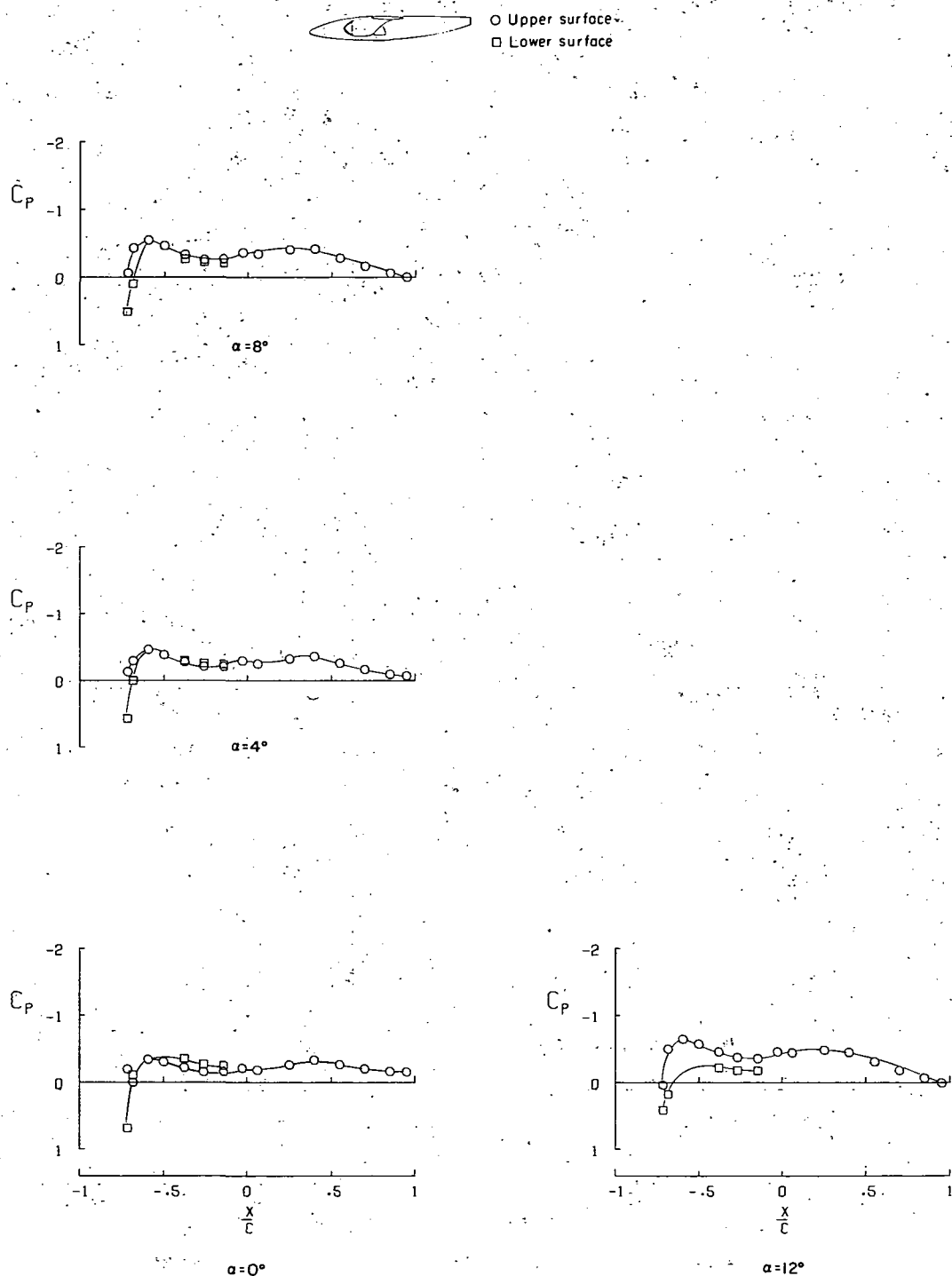
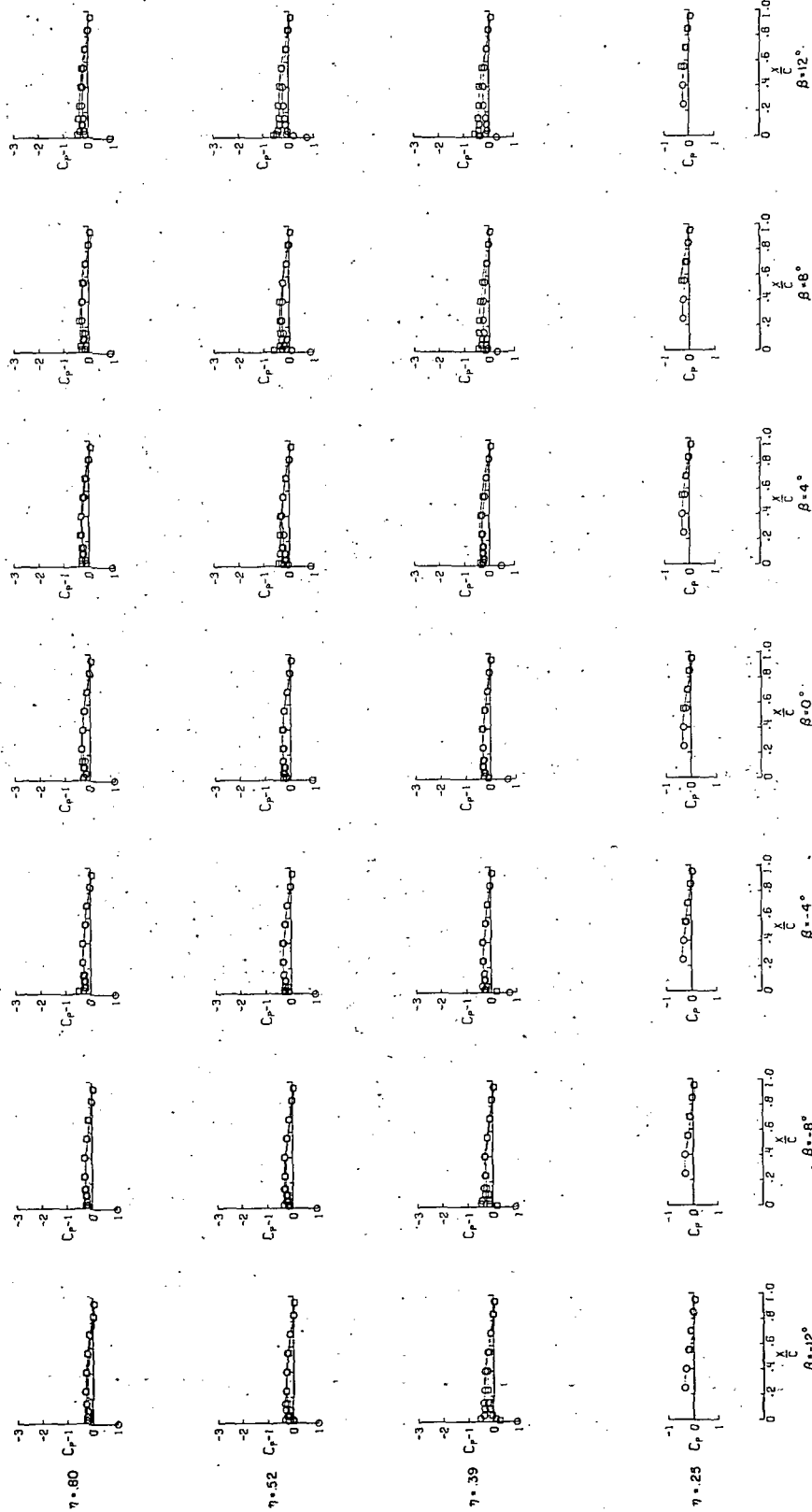


Figure 26.- Pressure distributions on the nacelle for the forward 90° nozzle configuration with inlets closed.  $\left(\frac{V_\infty}{V_j}\right)_e = \infty$ .



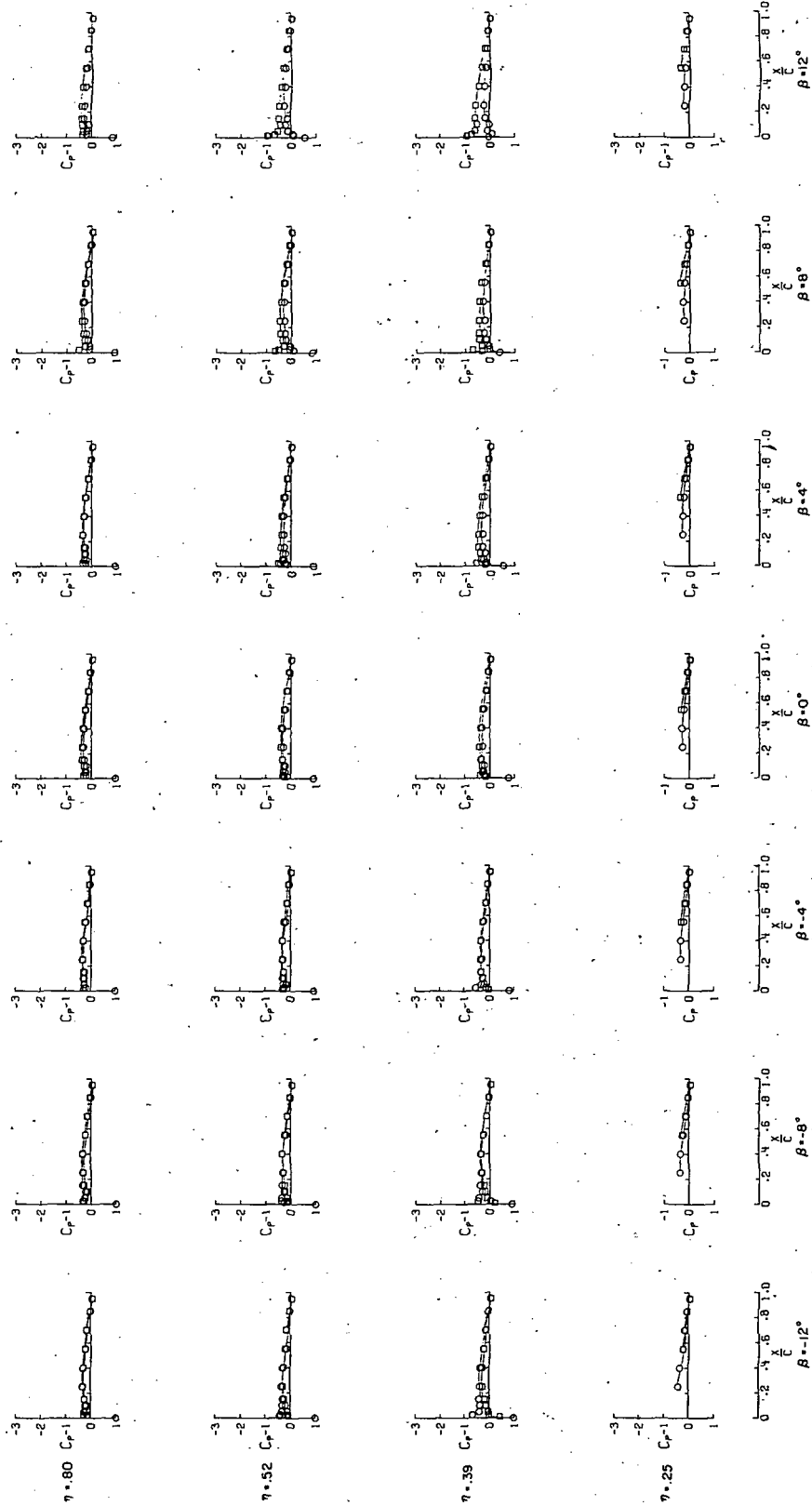
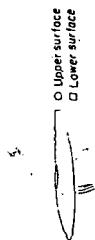


○ Upper surface  
□ Lower surface



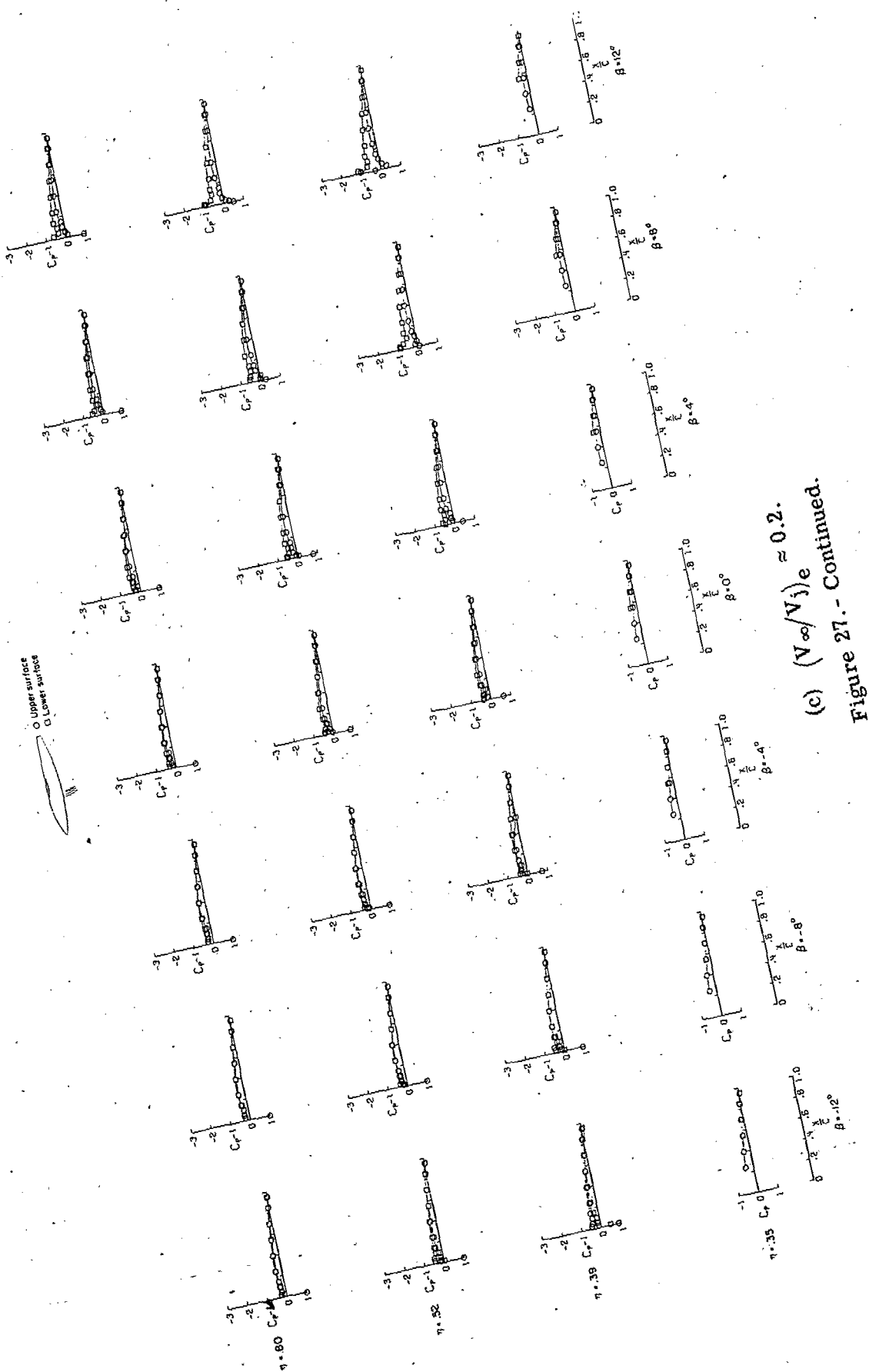
(a)  $(V_\infty/V_j)_e \approx \infty$ .

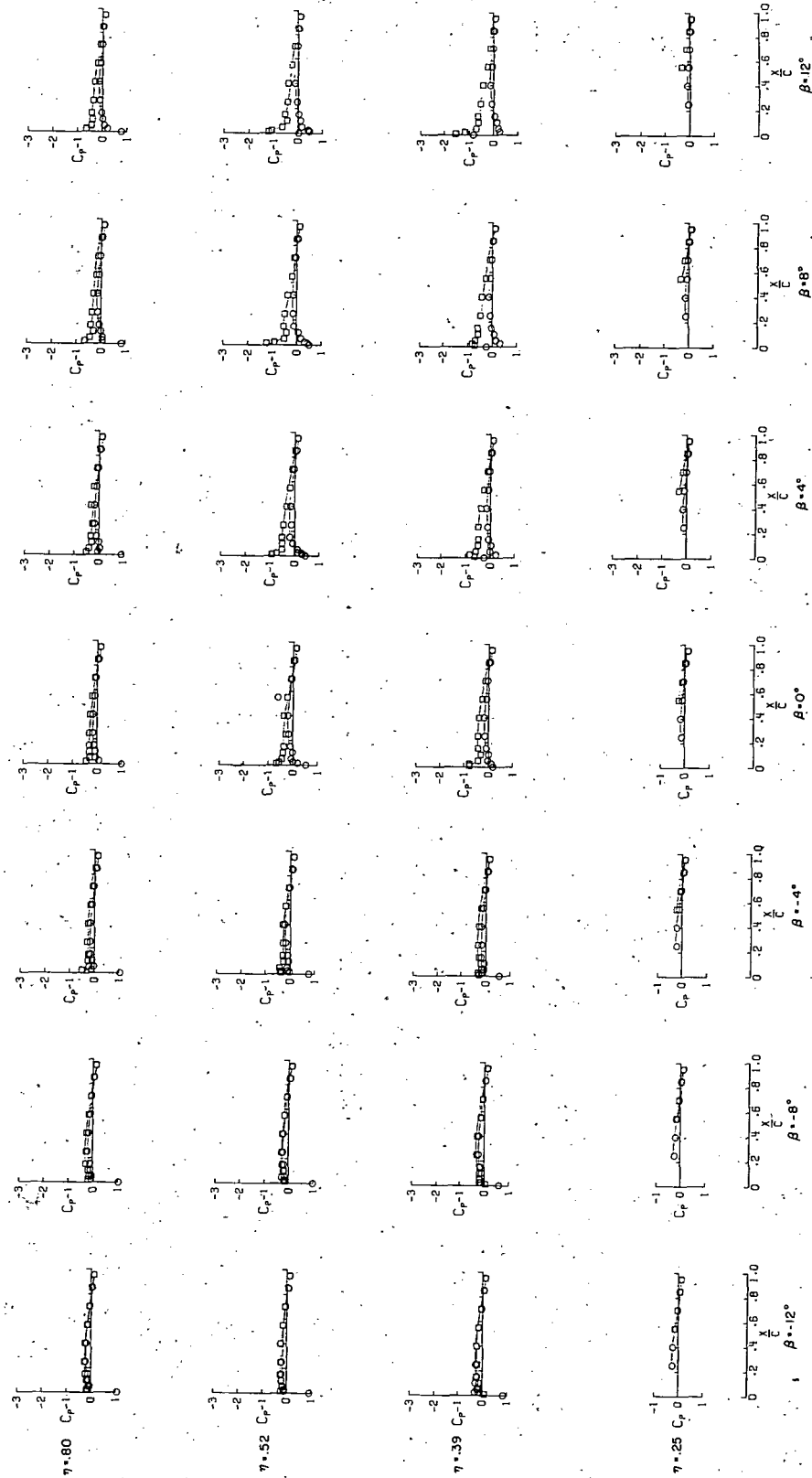
Figure 27. - Pressure distributions on the wing for the lift-jet configuration at an angle of attack of  $0^\circ$ .



(b)  $(V_\infty/V_i)_e \approx 0.3$ .

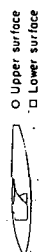
Figure 27.- Continued.



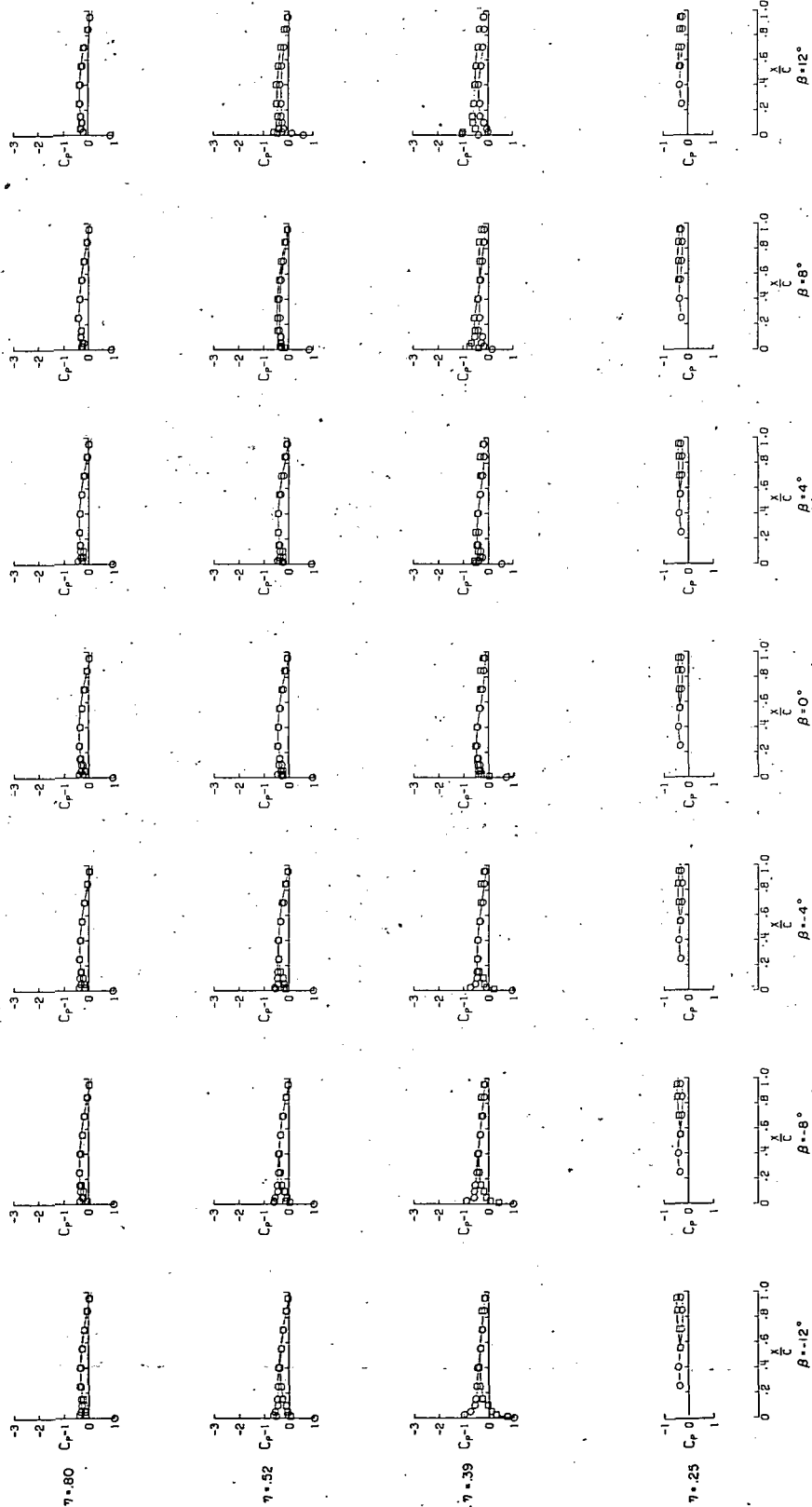


(d)  $\gamma (V_\infty/V_j)_e \approx 0.1$ .

Figure 27. - Concluded.

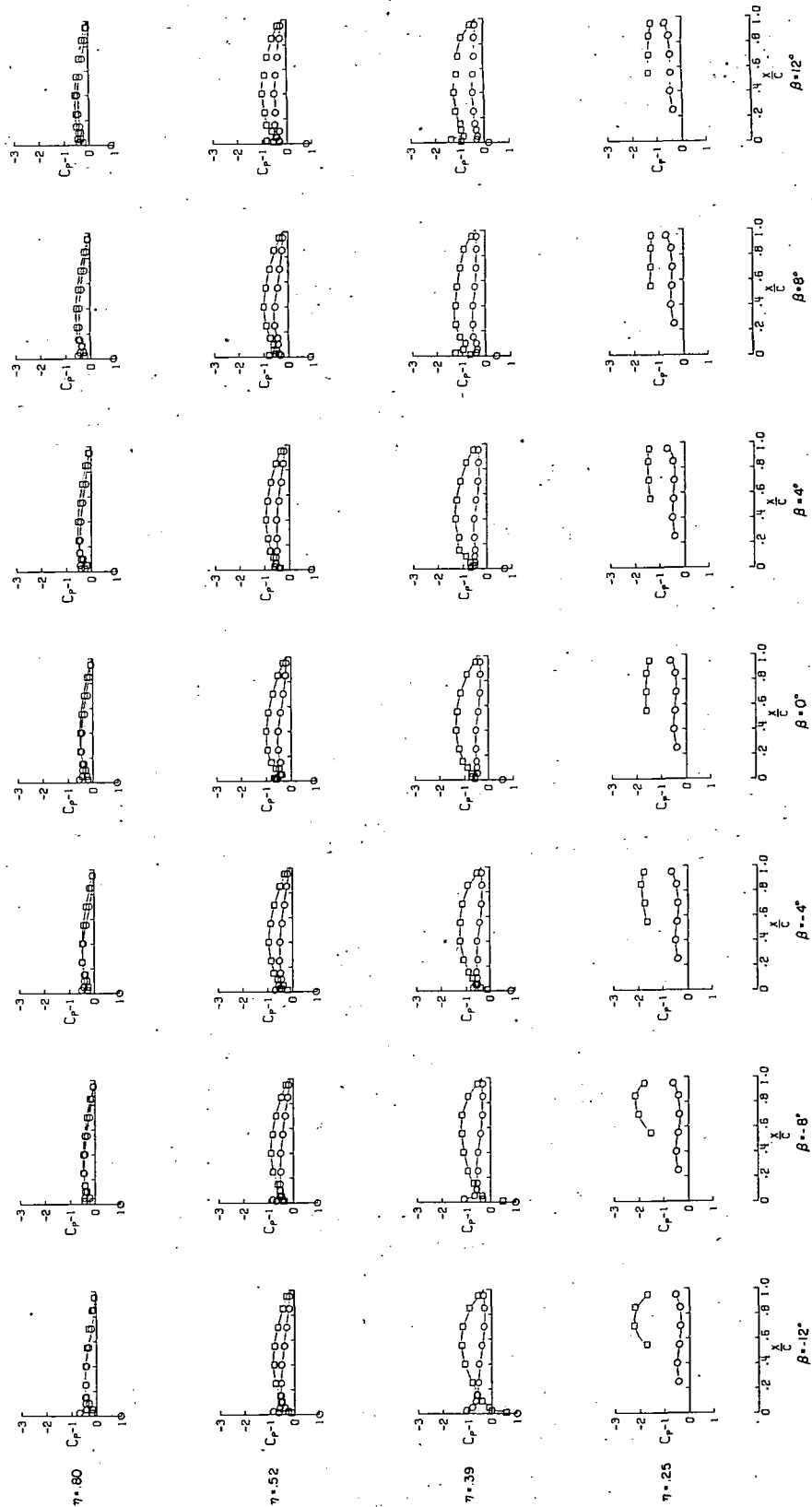
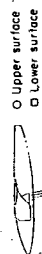


○ Upper surface  
□ Lower surface



$$(a) \left( V_{\infty}/V_j \right)_e = \infty.$$

Figure 28. - Pressure distributions on the wing for the forward 90° nozzle configuration at an angle of attack of 0°.

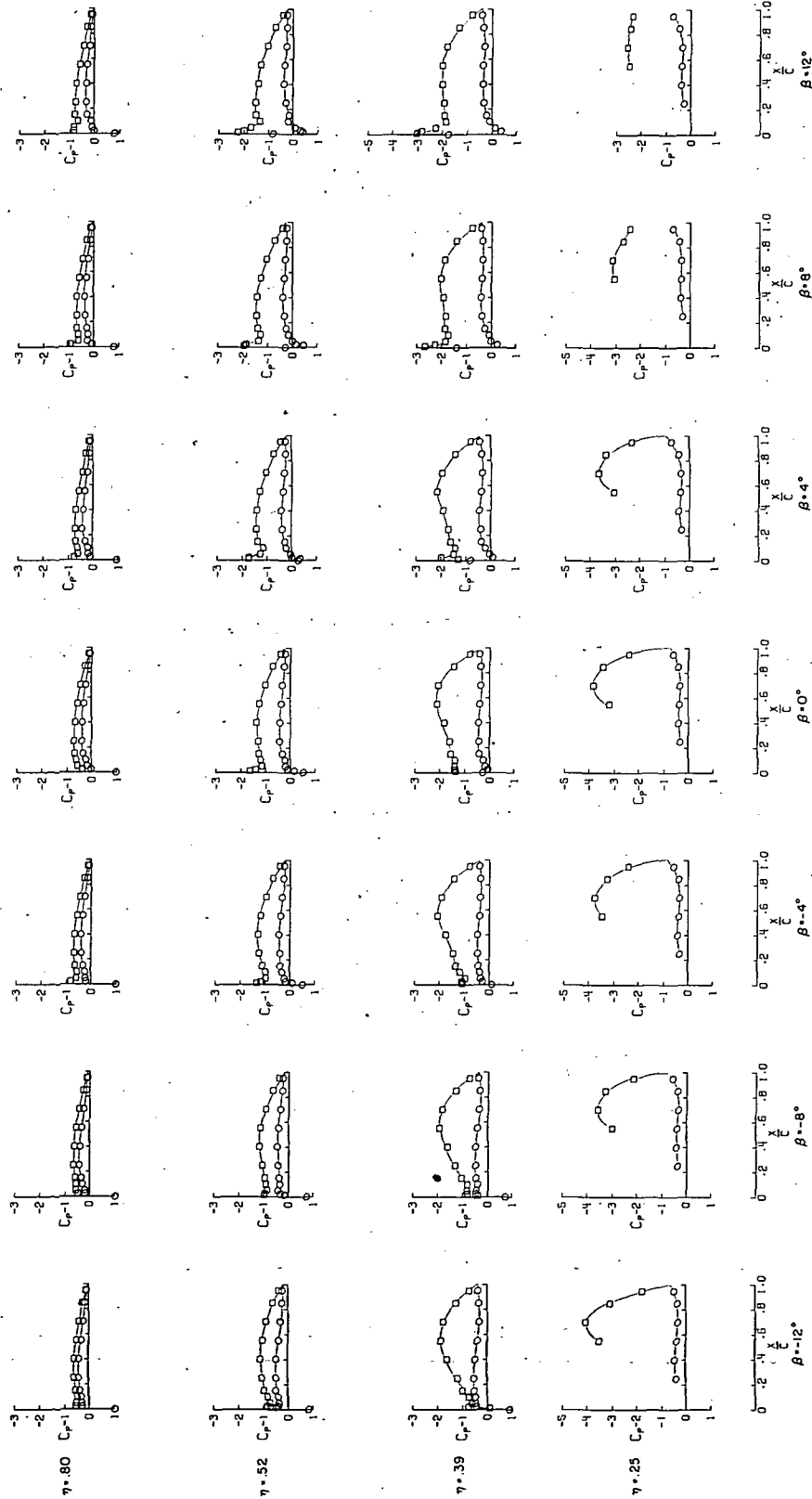


(b)  $(V_\infty/V_{j_e}) \approx 0.3$ .

Figure 28.- Continued.



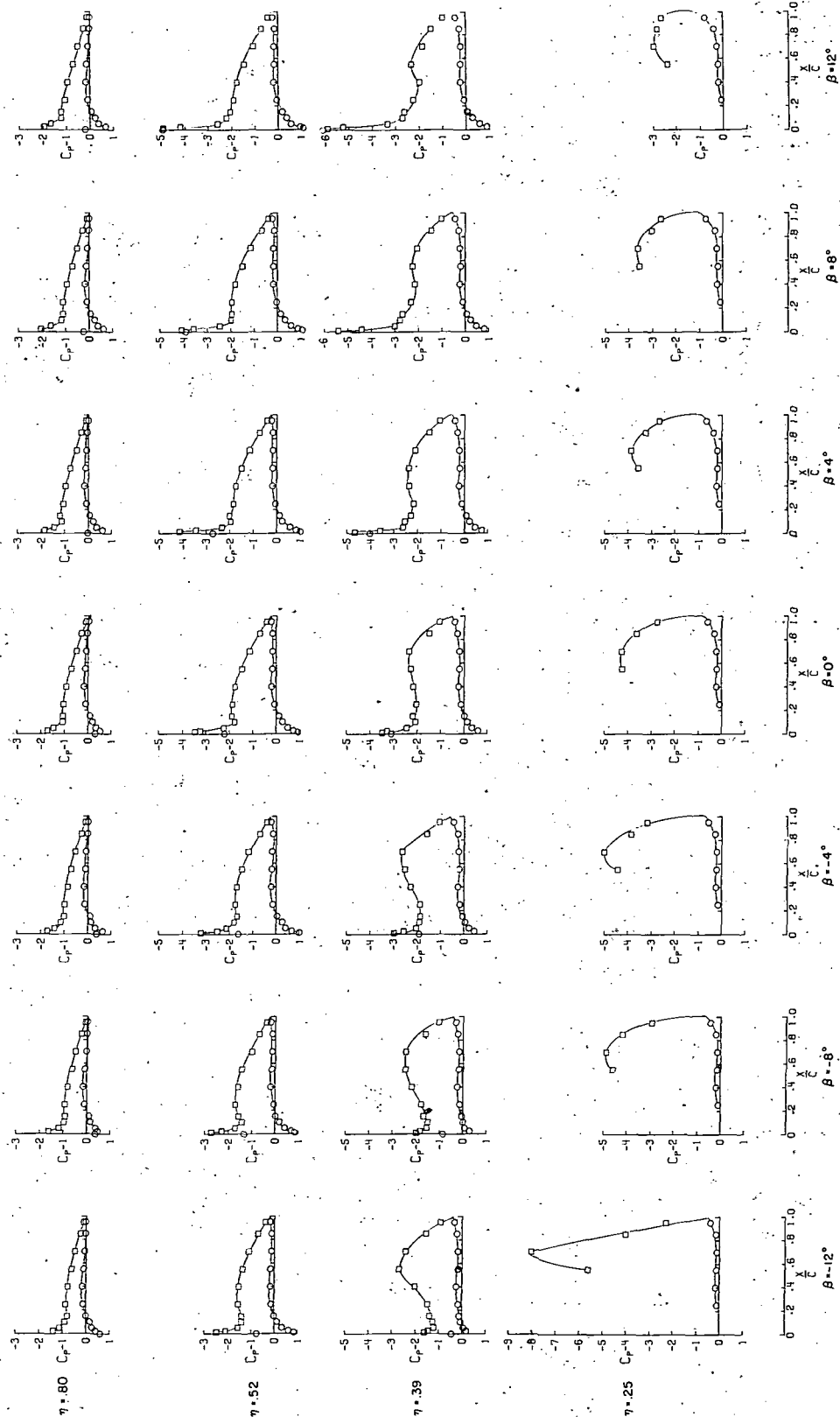
○ Upper surface  
□ Lower surface



(c)  $(V_\infty/V_j)_e \approx 0.2$ .

Figure 28. - Continued.

○ Upper surface  
□ Lower surface



(d)  $(V_\infty/V_i)_e \approx 0.1$ .

Figure 28. - Concluded.



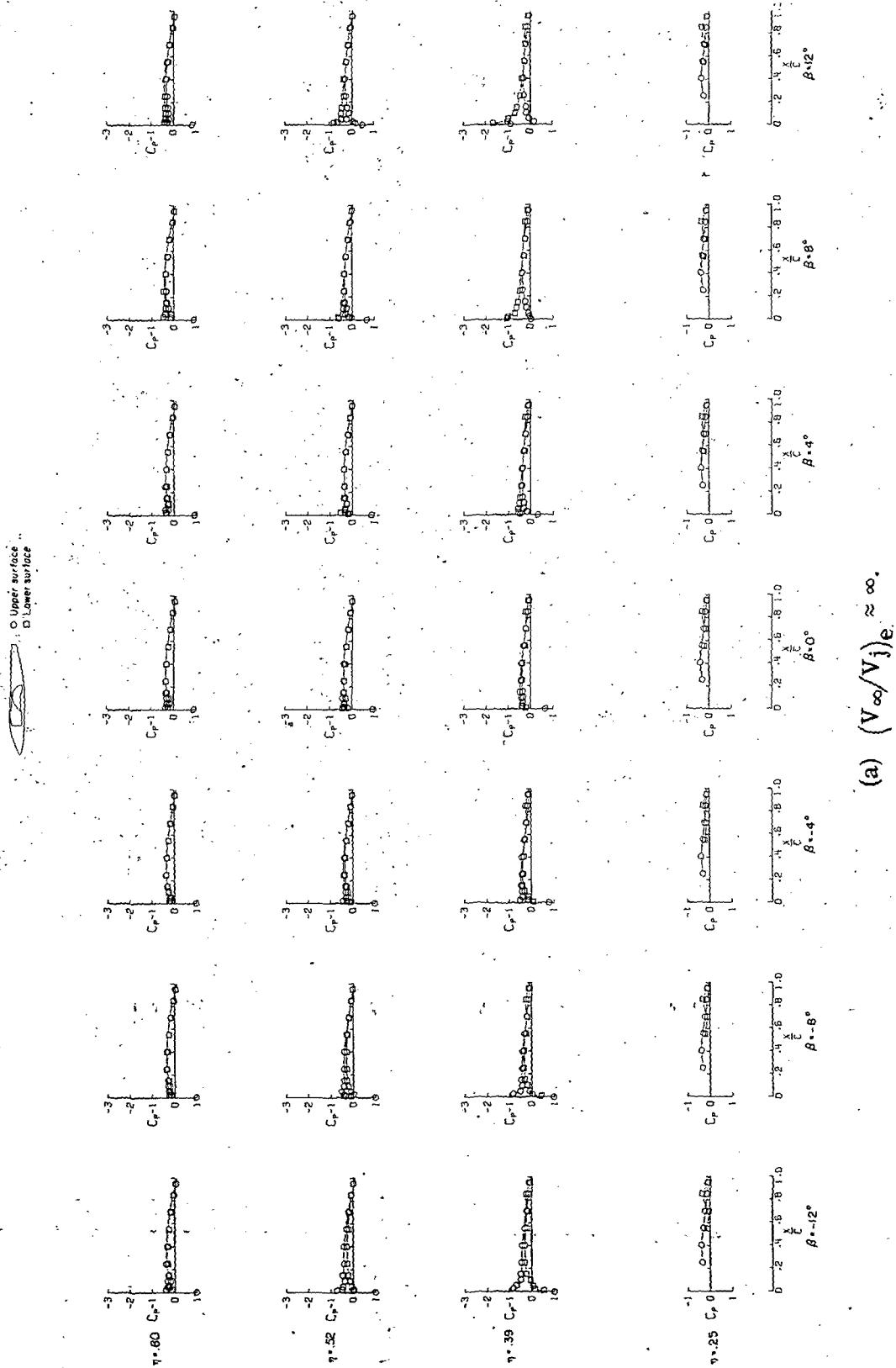
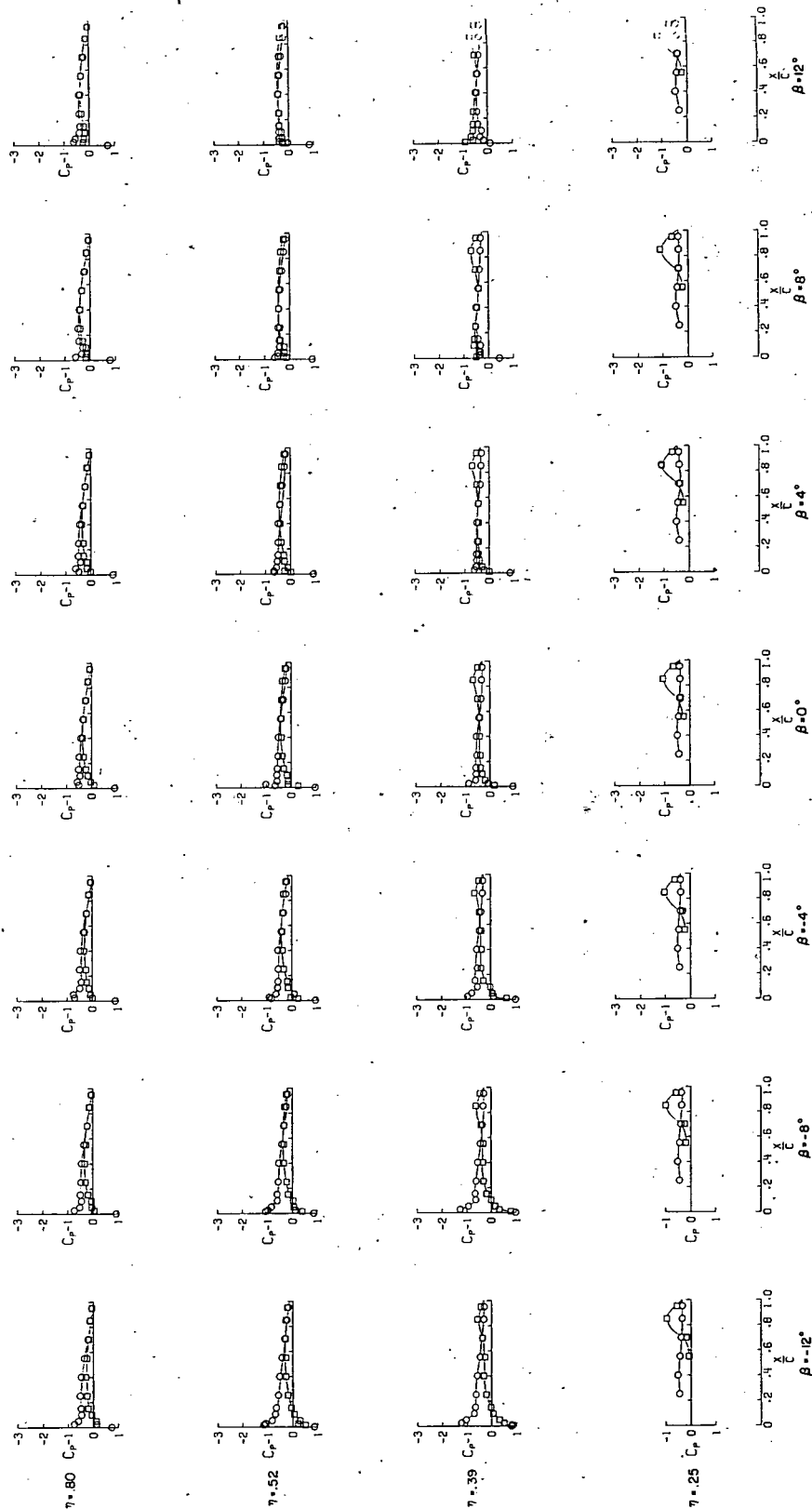


Figure 29.- Pressure distributions on the wing for the rear 90° nozzle configuration at an angle of attack of 0°.

○ Upper surface  
□ Lower surface

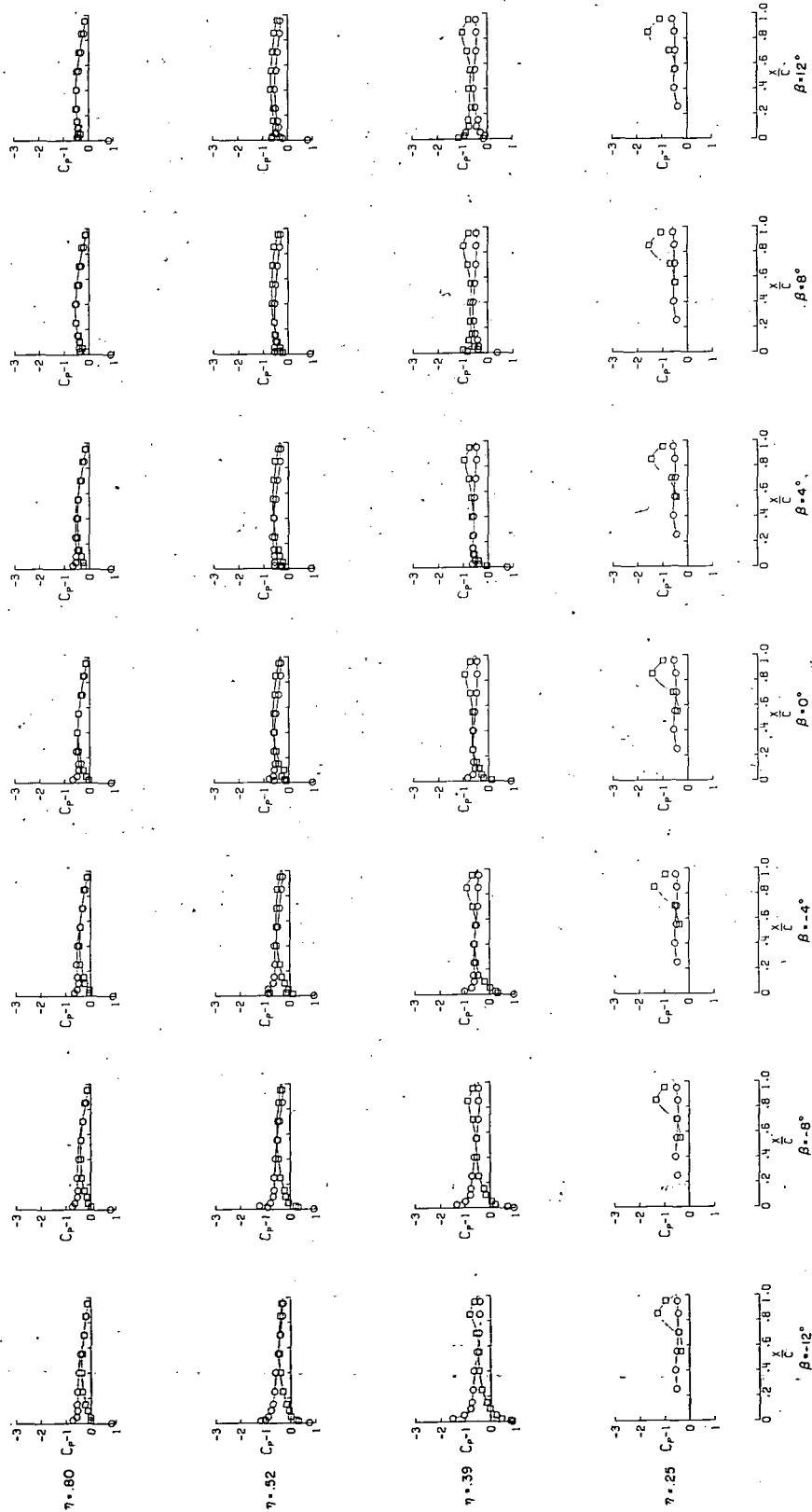


(b)  $(V_\infty/V_{j_e}) \approx 0.3$ .

Figure 29.- Continued.

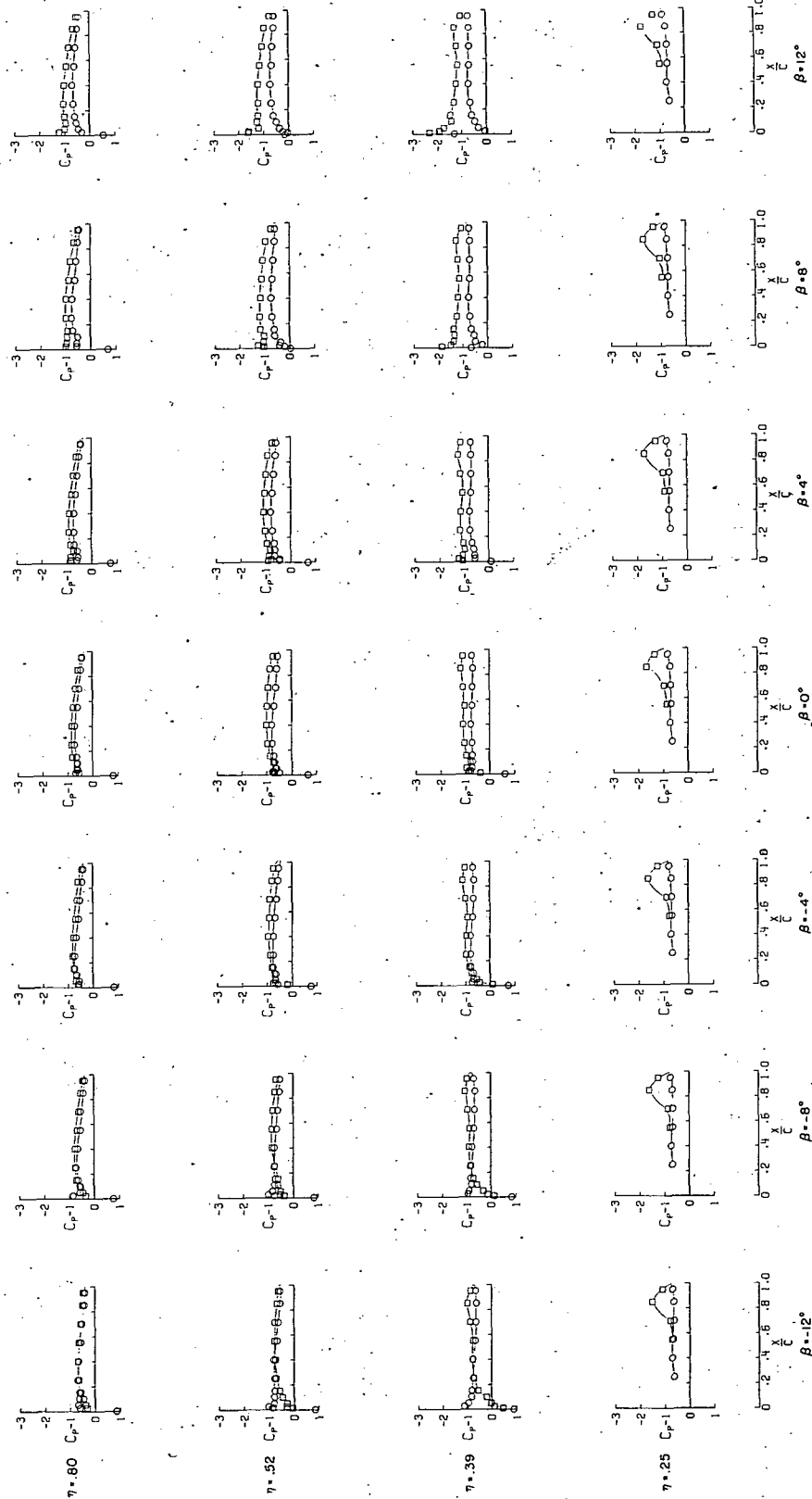
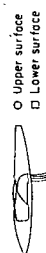


○ Upper surface  
□ Lower surface



(c)  $(V_{\infty}/V_j)_e \approx 0.2$ .

Figure 29. - Continued.



(d)  $(V_\infty/V_j)_e \approx 0.1$ .

Figure 29. - Concluded.



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